Globalization and Canada's Financial Markets

A research report prepared for the
Economic Council of Canada
1990

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Canadian Cataloguing in Publication Data

Main entry under title:

Globalization and Canada's financial markets: a research report

Issued also in French under title: Les marchés financiers canadiens et la mondialisation.
ISBN 0-660-13420-9
DSS cat. no. EC22-162/1989E

1. International finance. 2. Money market.
3. International cooperation.
4. Financial institutions – Canada.
I. Economic Council of Canada.

HG3881.G55 1989 332'.042 C90-098505-4

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90-02533/

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Available in Canada through

Associated Bookstores
and other booksellers

or by mail from

Canadian Government Publishing Centre
Supply and Services Canada
Ottawa, Canada K1A 0S9

Catalogue No. EC22-162/1989E
ISBN 0-660-13420-9

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Foreword

The 1980s will be remembered as a decade that brought various parts of the world closer together through such developments as the easing of East-West tensions, the building of the single European market, the emergence of stronger economic ties between the countries of the Pacific Rim, and the trade agreement between Canada and the United States. Nowhere is the movement towards closer ties among the world's economies more evident than in the globalization of the financial sector. The integration of financial markets around the world and the associated financial innovation have brought fundamental changes in the way financial institutions operate, in the way funds are raised, and in the kinds of financial instruments that are used.

For many years, the Economic Council has taken a strong interest in the operations of the Canadian financial system. In 1976, we published a major report on the regulation of banks and other deposit institutions. This was followed in 1982 by a report on the role of government in Canadian financial markets.

More recently, the Council issued a Statement, *Competition and Solvency* (November 1986), and a companion research report, *A Framework for Financial Regulation* (March 1987), presenting an in-depth analysis of Canada's financial institutions and markets, as the long-awaited overhaul of domestic regulation got under way. We also set out recommendations aimed at increasing competition in the domestic market, improving the access of Canadians to efficient financial services, and buttressing the solvency of their financial institutions.

In June of 1989, the Council released *A New Frontier*, in which we set out our recommendations as to how Canadians should respond to the internationalization and innovation in financial markets – two developments that have increased dramatically in momentum and significance in recent years. In the present report, we set out the research on which those recommendations were based.

Internationalization and financial innovation may, at first, appear to be of only distant concern to many Canadians. Our research has shown, however, that they have a direct impact on the well-being of Canadians in all walks of life. They open up new opportunities for Canadian financial institutions; they give Canadian borrowers access to new pools of money in ways that are tailored to their needs; and they enable investors to diversify their portfolios. As borrowers and investors are themselves producers of goods and services, these developments reduce their operating costs and thus strengthen their competitiveness.

But our research has also shown that internationalization and the development of new instruments make it much more difficult to track financial transactions, to identify the parties to financial trades, and to access the risk exposure of various participants in financial markets – institutions or individual borrowers or investors. This has a potentially negative impact on the stability of both international and domestic financial markets.

Accordingly, the major challenge is to get the most out of internationalization and innovation while reducing the risks inherent in them. Achieving the appropriate balance between competition objectives and solvency objectives is thus fundamental to our recommendations.

In the process of undertaking the research for this report, members of the team travelled to Europe, the United States, and Australia, as well as here in Canada, conducting more than 250 interviews with representatives of financial institutions, corporations, regulators, and policymakers. In addition, a database was acquired which provided us with detailed information on individual issues in the Eurobond market (since 1963) and in the market for shorter-term notes (since 1981). Data were also obtained from corporations, governments, trade associations, and institutions themselves.

Much of the recent internationalization and innovation in financial markets has taken place in the large-scale transactions that take place in the wholesale sector. Thus far, the retail sector has not been affected in a major way. For this reason, and because of our desire to have a timely input into the current review of financial legislation, we have concentrated our research activities on the wholesale sector. However, we do believe that, over time, globalization and financial innovation will impinge heavily on the retail operations of banks, securities houses, insurance companies, and trust companies.

The research team was assisted by an advisory committee, composed of three Council members and four outside experts, two of them from large international institutions. The committee, which was chaired by Alix Granger, a Council member, provided valuable guidance to the research team in setting the overall direction of the project and in evaluating the research results. On behalf of the Council, I would like to thank the members of the advisory committee for their contribution to the Council's research effort.

Judith Maxwell
Chairman

Globalization and Canada's Financial Markets

READER'S NOTE

The reader should note that various conventional symbols similar to those used by Statistics Canada have been used in the tables:

. .	figures not available
. . .	figures not appropriate or not applicable
– –	amount too small to be expressed
–	nil or zero
p	preliminary data.

Details may not add up to totals because of rounding.

1 Introduction

Over the past decade, the winds of change have swept through the world's financial systems. The way in which financial institutions operate and the way in which funds are raised have been fundamentally altered. The domestic financial markets of many nations have become linked more closely, and large segments of financial activity are now global in scope.

This rapidly progressing internationalization has been accompanied by the spread of financial innovation – the process that generates new instruments and practices. The use of these new instruments and practices has spurred the process of globalization of financial markets; in turn, globalization has created new opportunities for the development and use of innovative products.

These developments have provided many benefits for the users of financial services, including Canadians. But they have also brought with them the potential for increased costs and risks. The concern here is that Canadians should benefit fully from those changes and that the "downside" effects should be minimized.

To this end, the Council has formulated a set of 23 recommendations, which were published in a Statement entitled *A New Frontier: Globalization and Canada's Financial Markets*, and which are reproduced in Chapter 7 of this report. These recommendations are relevant both for the management of Canadian financial markets and of the world's financial system. The objective of this report is to present the research material upon which the Council's recommendations were based.

The Importance of Financial Markets

The financial industry has long been an important part of modern economies, providing for the financial needs of individuals, businesses, and governments. Decisions made in financial markets around the world have impacts that permeate every aspect of economic activity, especially the way in which capital is allocated to its various uses. Changes to such a vital industry demand the close attention of Canadians.

In addition, financial innovation and internationalization are taking place in a world where some aspects of that industry's activities, largely because of rapid growth, have acquired an increased economic significance. This growth is evidenced in the rapid increase in bank assets, in the growing proportion of financial activities that are channelled through financial institutions, in the rising importance of direct (or market) intermediation of funds, and in the wider range of activities undertaken by financial institutions.

The increased significance of some classes of financial institutions is exemplified by the growth, over the past three decades, in the assets of banking institutions of Canada and other industrialized nations, relative to the size of the economies of which they are a part (Table 1-1). This growth highlights the important role played by the banking sector in the allocation of capital to its various uses.

The proportion of financial activities channelled through financial institutions – a phenomenon commonly referred to as the "institutionalization" of financial markets – has also risen, providing further evidence of the expanding role of those institutions. In Canada, for example, the "financial-intermediation ratio" – the ratio of the assets of financial institutions to total financial assets in the economy – increased significantly during the period 1961-87 (Chart 1-1).

An important feature of the increasing significance of some aspects of financial activity is the greater use of financial markets and instruments that intermediate funds directly – a process called "market intermediation," which involves the issuance of, and trading in, securities such as bonds or stocks – as opposed to "financial intermediation," in which the institution raises funds by issuing a claim on itself and provides funds in the form of loans. For example, between the mid-1970s and the mid-1980s, the bond market grew much faster than the overall economy in a number of countries (Chart 1-2). This shift was stimulated, in part, by the globalization of financial markets and by the development of innovative products. It raises important questions in the context of the regulation of financial activity.

Finally, the range of activities undertaken by financial institutions, particularly with respect to the use of

Table 1-1

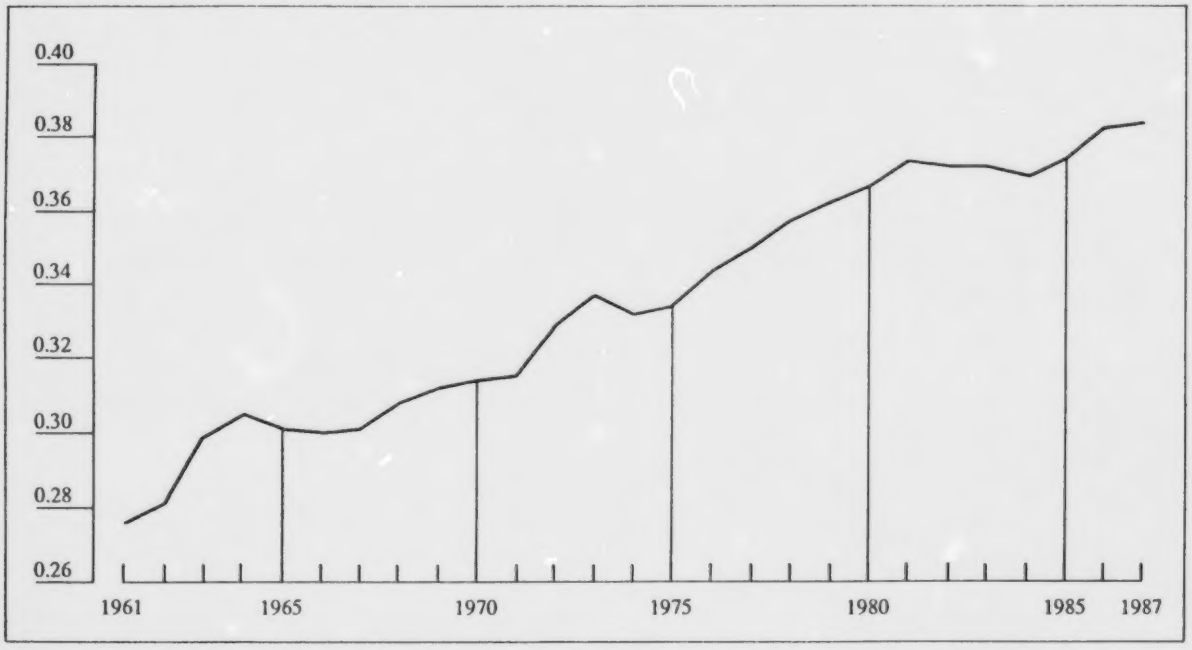
Assets of Banking Institutions Relative to GNP, Selected Countries, 1960-87[1]

	Canada	United States	United Kingdom	Japan	West Germany
			(Per cent)		
1960	41	43	36	..	55
1970	60	48	64	87	89
1980	96	54	101	107	115
1986	93	57	184	134	132
1987	91	58	176	145	132

1 The figures are not directly comparable between countries and only reveal the changes in each country over time.
SOURCE Estimates by the Economic Council of Canada, based on data in International Monetary Fund, *International Financial Statistics Yearbook, 1988*.

Chart 1-1

Financial-Intermediation Ratio,[1] Canada, 1961-87



1 Ratio of the assets of financial institutions to total financial assets in the economy. A rise in the ratio indicates that the importance of financial institutions in the conduct of Canada's financial transactions has grown.
SOURCE Based on data from Statistics Canada.

innovative products, is changing rapidly. This change also raises important concerns for the regulators of financial institutions.

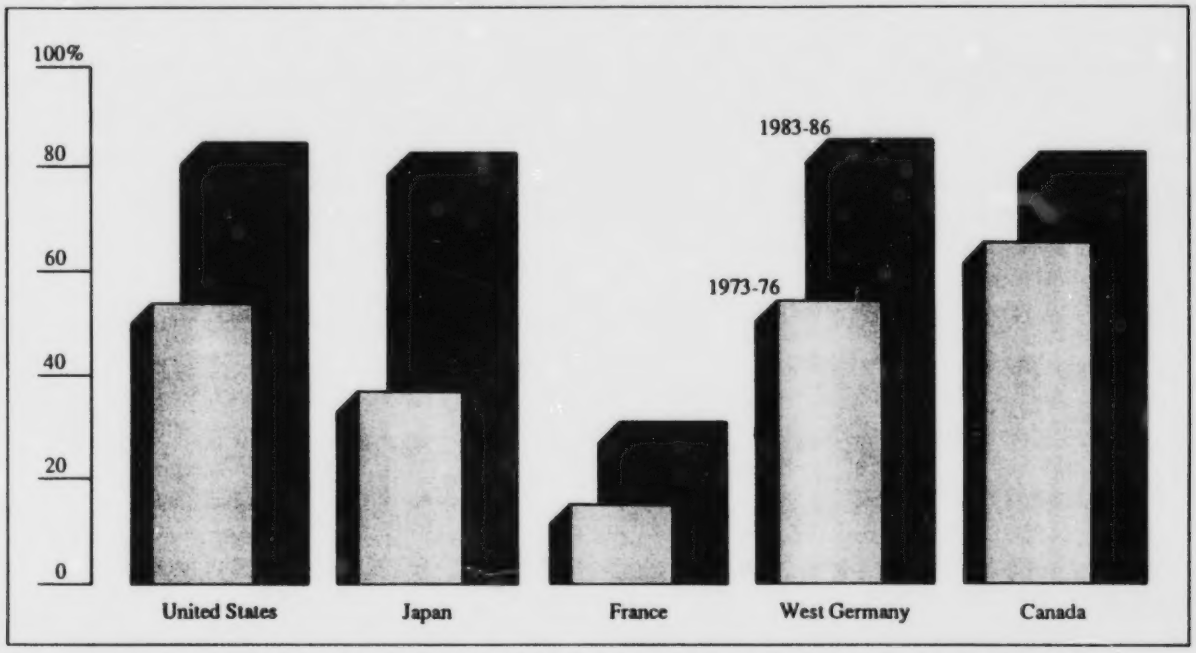
Much of the enhanced role of many segments of the financial-services industry has been brought about by the dual phenomenon of internationalization and innovation, which is the focus of this study.

Financial Innovation

The development of new financial instruments and practices has opened up many opportunities for participants in financial markets, both in the raising of funds and in the management of risks; it has also changed the kinds of risks faced by financial institutions, and it has important consequences for the regulation of financial markets.

Chart 1-2

Size of Bond Markets Relative to GNP, Selected Countries, 1973-76 and 1983-86



SOURCE Based on data from M. Watson, D. Mathieson, R. Kincaid et al., *International Capital Markets: Developments and Prospects* (Washington, D.C.: International Monetary Fund, January 1988), and from Statistics Canada, *System of National Accounts and National Balance Sheet Accounts*, Cat. 13-214, 1987.

The financial instruments and practices introduced since the mid-1970s can be divided into three broad categories, based on their principal role:

- Market-broadening instruments, which are aimed at giving borrowers access to new sources of funds. The volume of funds raised with these instruments, which in some ways resemble traditional securities (such as bonds or commercial paper), has grown very rapidly, particularly in the 1980s. The increased use of international financial markets can be attributed, in part, to the improved access to international pools of funds provided by these instruments.

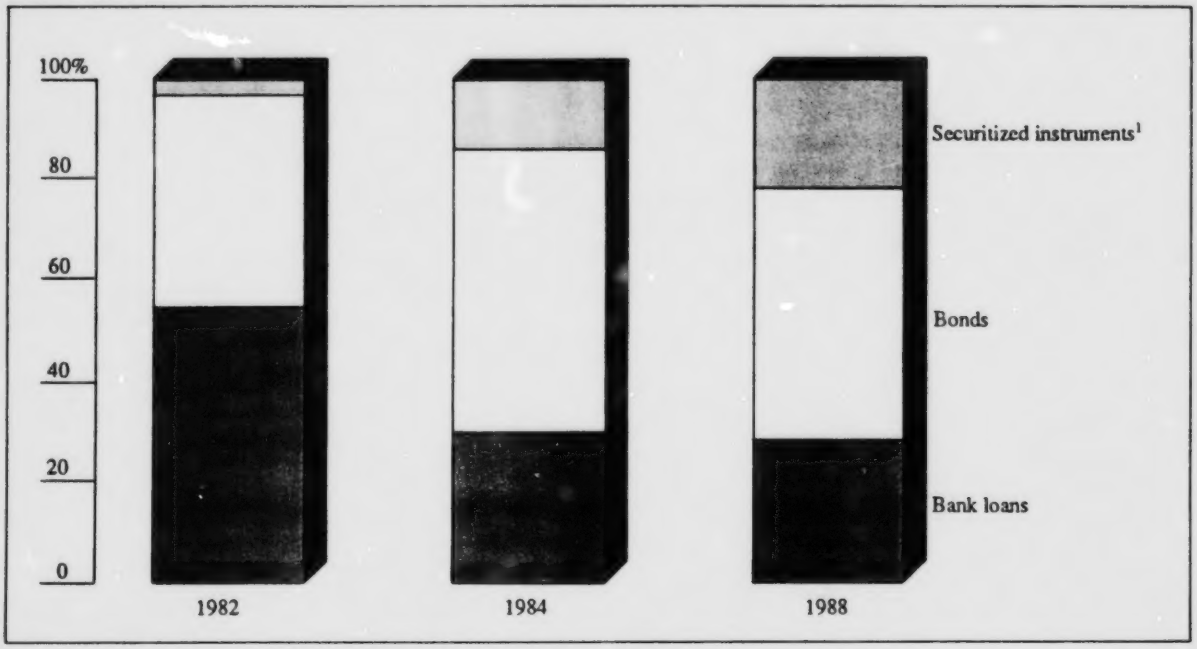
- Risk-management instruments, the use of which has grown very rapidly over the past 10 years. Some of these instruments are standardized and are traded on organized exchanges, while others are tailor-made by financial institutions to meet the specific needs of their customers. These instruments provide the means by which both financial institutions and their customers are able to handle some of the risks associated with operating in a globalized financial environment. The markets for some of these instruments are not well developed in Canada, and that is a cause for some concern.

- Market-arbitraging instruments, which facilitate arbitrage between markets, thereby enabling borrowers to raise funds in markets or currencies to which they might otherwise not have access. These instruments have played an important role in facilitating the internationalization of financial activity.

The spread of many of these new instruments has contributed significantly to the growing use of securities and security-like instruments – which are created through the process of securitization – and it has been accompanied by a decline in the share of funds raised in international markets by means of loans (in particular syndicated bank loans). In this context, securitization involves the use of notes and bonds instead of bank loans for the raising of funds by borrowers with high credit ratings, such as governments and large corporations. It has been encouraged by the development of borrowing facilities, under which a bank arranges for negotiable instruments to be issued in the borrower's own name and for a standby line of credit that can be made available should the issue encounter market resistance. The increased use of these instruments has contributed to the shift from loans to securitized forms of lending, mentioned above (Chart 1-3).

Chart 1-3

Distribution of Funds Raised on International Markets, by Category of Instrument, 1982-88



1 Includes note-issuance facilities, Euro-commercial paper, other borrowing facilities, and international equities.
SOURCE Based on Organisation for Economic Co-operation and Development, *Financial Market Trends*, various issues.

In the United States since the 1970s – and more recently, in other countries as well – securitization has involved the packaging of mortgage, automobile, credit-card, or business loans into securities pools, against which participation certificates are sold to investors. These are the so-called asset-backed securities, which have grown very rapidly in recent years. These instruments have a great potential for improving the efficiency of financial markets in a large multiregional economy such as Canada, where the dilemma facing policymakers is that institutions must serve local needs while ensuring adequate diversification of their asset portfolio.

Internationalization of Financial Markets

The internationalization of financial markets has been part of the emerging trend in the 1980s towards greater interdependence and integration among national economies. This trend is reflected in the increased flows of people, goods, services, and knowledge across national borders, largely as a result of dramatic decreases in travel time and cost. Modern technology, as embodied in computers and satellites, has brought the world to the age of instant communication. As a consequence, people around the world have come to depend increasingly on products and services from other countries, and on the markets those other countries provide. Nowhere is the trend towards integration more evident than in the financial domain.

A number of important features of the integration of financial markets stand out. Cross-border capital flows, largely the result of international lending and borrowing activity, have increased dramatically. The domestic financial markets of many countries are being increasingly penetrated by financial institutions from other nations, and trade in financial services is becoming a major component of international trade negotiations.

International Lending and Borrowing

The evidence for the growth in cross-border capital flows is overwhelming. International loans and credit facilities extended by banks in all member countries of the Organisation for Economic Co-operation and Development (OECD) more than doubled between 1980 and 1985, and Eurobond offerings quadrupled between 1983 and 1986. In comparison, the expansion of domestic loans was more limited; for example, outstanding loans to businesses and governments

by Canadian banks increased by only 32 per cent between 1980 and 1985; during the same period, loans by commercial banks in the United States to U.S. residents rose by 72 per cent.

This increase in international lending activity has been accompanied by a growing use of currencies other than the U.S. dollar in international transactions. While the dollar remains the dominant international currency – as it has been since the mid-1940s – the growing importance of the yen, the Deutschemark, the Swiss franc, and the British pound in such transactions underlines the willingness of international market participants to use a variety of currencies.

Expansion of Financial Institutions into Foreign Markets

Prior to the 1960s, the financial institutions of most industrialized countries conducted the larger part of their international activities from the country in which their head office was located. In the case of banks, much of this business consisted of foreign-exchange operations and the extension of trade credit connected with commercial activity. Banking transactions abroad were carried out through correspondent banks in foreign countries. Some banks had representative offices in major world centres, as well as a few foreign retail and commercial banking subsidiaries.

Insurance companies operated in much the same fashion as they do now, selling their retail products across a number of international borders. Securities firms were established in major world centres. However, most firms derived only a small share of their business from such establishments.

The spectacular development of the Euromarket near the end of the 1960s led banks and securities firms to establish or expand operations in the large financial centres where Euro-transactions were taking place. Initially, this meant

Table 1-2

Number of Foreign Banks[1] or Banking Offices[2] in Selected Countries, 1960-87[3]

	1960	1970	1980	1985	1987
			(Number of institutions)		
Host country:					
Belgium	14[4]	26	51	57	..
Canada	–	–	–	57	58
Italy[5]	1	4	26	36	..
Netherlands	..	23	39	40	..
Switzerland	8	97	99	119	..
United Kingdom	51[6]	95	214	293[7]	368
Australia	..	..	..	2	18
			(Number of banking offices)		
France	33	58	122	147	156
Germany	24	77	213	287[8]	..
Japan[9]	34	38	85	112	..
Luxembourg	3	23	96	106	..
United States	..	..[10]	579	783[11]	691[12]

1 Foreign banking institutions operating in the country through branches or majority-controlled subsidiaries, unless otherwise specified.
2 Foreign banking organizations represented by more than one entity are double-counted.
3 The data are for the end of the year, except for 1985, where they are for the mid-year point.
4 1958.
5 Branches only. At 30 June 1985, there were five foreign-owned subsidiaries.
6 1962.
7 At 30 June 1985, the total number was 357 if joint ventures and consortium banks are included.
8 At 30 June 1985, these offices represented 95 banking organizations.
9 Branches only. At 30 June 1985, there were 76 foreign banks.
10 In the early 1970s, there were about 50 foreign banking offices.
11 At 30 June 1985, these offices represented approximately 350 institutions.
12 At 30 June 1987, these offices represented approximately 264 institutions.

SOURCE Bank for International Settlements, *Recent Innovations in International Banking* (Basle: BIS, April 1986); *The Canada Gazette*, Part 1 (27 February 1988), Supplement; and various reports.

Table 1-3

Relative Importance of Foreign-Bank Assets[1] in Selected Countries, 1960-87[2]

	1960	1970	1980	1985	1987
			(Per cent)		
Australia	..	..	..	..	9.0[3]
Belgium	8.2[4]	22.5	41.5	51.0	..
Canada	..	..	..	6.3	8.9
France	7.2	12.3	15.0	18.2[5]	17.1
West Germany[6]	0.5	1.4	1.9	2.4	1.9
Italy	..	..	0.9	2.4	..
Japan[6]	..	1.3	3.4	3.6	2.8[7]
Luxembourg[8]	8.0	57.8	85.4	85.4	..
Netherlands[9]	..	..	17.4[10]	23.6	..
Switzerland	..	10.3	11.1	12.2	..
United Kingdom	6.7	37.5	55.6	62.6	61.6
United States[11]	..	5.8[12]	8.7	12.0	12.8

1 Measured as a proportion of all banking assets.
2 The data are for the end of the year, except for 1985, where they are for the mid-year point.
3 Only new foreign banks.
4 1958.
5 1984.
6 Branches only.
7 Main assets of foreign banks only.
8 Belgian-owned banks are not considered foreign banks.
9 Universal branches only.
10 1983.
11 Foreign agencies and branches only.
12 1976.

SOURCE BIS, *Recent Innovations*; *The Canada Gazette*, Part 1 (27 February 1988), Supplement; and various reports.

London, but many financial institutions subsequently established operations around the world (Table 1-2). In many countries, foreign establishments increased their share of the total assets of the domestic banking system (Table 1-3).

Trade in Financial Services

An important aspect of the internationalization of financial markets is the dramatic increase in cross-border exchanges of financial products. Trade in financial services, which is related to, but not identical to, cross-border capital flows, has increased in significance. For example, it holds an important place in the Canada-U.S. Free-Trade Agreement. It is also on the agenda of the Uruguay Round of multilateral negotiations under the General Agreement on Tariffs and Trade (GATT).

But the precise definition of "trade in financial services" raises some difficulties. So far, the GATT discussions have focused on specific aspects of that trade, such as the liberalization of cross-border capital flows and foreign direct investment in the financial industry – the so-called "right of establishment." As regulatory changes in the major industrial countries have removed most, if not all, of the barriers to cross-border capital flows, the focus in international discussions has now shifted to issues related to the right of establishment, which has special significance in the financial industry because of the importance that institutions attach to having a physical presence in the markets that they serve. An adequate conceptual framework that defines trade and facilitates the analysis of the costs and benefits of trade liberalization is necessary for an understanding of the issues involved. Appendix A provides such a framework.

Factors Underlying Internationalization and Innovation

The recent developments in the financial arena can be attributed to several factors that became important in the 1970s and facilitated – or even forced – the structural changes that have since affected financial systems around the world. They are:

- the growing current-account imbalances;

- changes in the domestic regulation of financial markets and institutions;
- the rising volatility in financial markets; and
- improvements in technology.

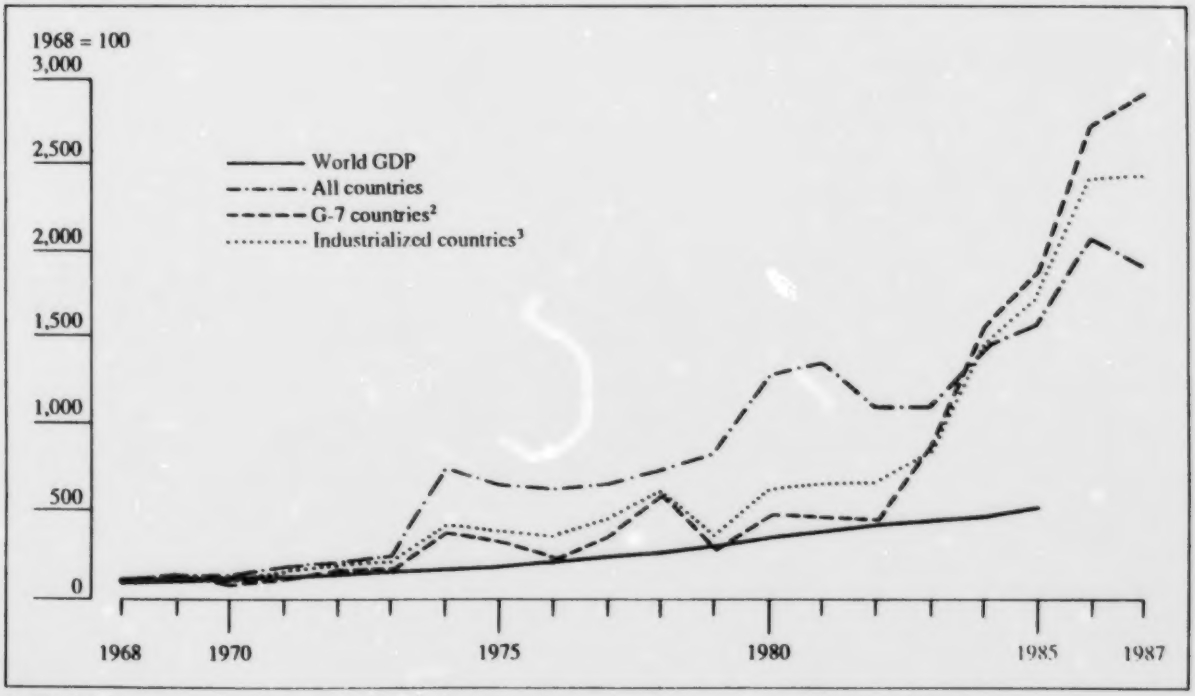
To a large extent, these four factors are interrelated. For example, the increasing volatility of interest and exchange rates has encouraged the development of new instruments aimed at protecting investors and borrowers; on the other hand, financial innovation itself may have been a contributor to market volatility. Internationalization would not have been possible without changes in financial regulation in many industrialized countries, but regulatory changes have been imposed on many nations by the forces of competition in an increasingly integrated world. The growing imbalances in the current-account position of many countries strengthened the forces of internationalization, as many nations looked beyond their borders to invest their surpluses or to finance their deficits. At the same time, however, internationalization made it possible for some countries to postpone the measures needed to correct the imbalances.

Growing Current-Account Imbalances

The 1970s and 1980s have been marked by growing current-account imbalances, relative to the situation in the earlier postwar years. Order had been brought to the international monetary system through the 1944 Bretton Woods Agreement, whereby the external values of most currencies were fixed and could only move within narrow bands relative to the U.S. dollar, which in turn was convertible into gold at a fixed rate. These arrangements imposed a certain discipline on nations. Devaluations and revaluations of currencies did occur from time to time, but they were discouraged as much as possible by the International

Chart 1-4

Index of International Trade Imbalances,[1] 1968-87



1 The imbalances are measured as the sum of the absolute values of current-account balances, expressed in U.S. dollars.

2 United States, Japan, West Germany, United Kingdom, France, Italy, and Canada.

3 Australia, Austria, Belgium, Denmark, Finland, Ireland, Luxembourg, the Netherlands, New Zealand, Norway, Spain, Sweden, and Switzerland, as well as the G-7 countries.

SOURCE: Estimates by the Economic Council of Canada, based on International Monetary Fund, *International Financial Statistics: Supplement on Balances of Payments, 1984*, and on IMF, *Yearbook, 1988*.

Monetary Fund – the organization established to administer the exchange-rate system agreed to at Bretton Woods. In the late 1960s, the increasing costs of the war effort in Vietnam led to rising inflation in the United States and to current-account imbalances. This made the maintenance of fixed exchange rates difficult and ultimately led to the move to flexible exchange rates in the early 1970s. That, in turn, further diminished outside discipline on nations.

In the late 1960s and early 1970s, the imbalances of all nations, including the major industrialized countries, grew at about the same pace as world GDP (a proxy for real growth and inflation), as shown in Chart 1-4.[1] Increased imbalances in 1974-75 developed after the first oil shock of 1973-74. Much of the increase in imbalances in 1981-82 came from the large deficits of Argentina, Brazil, and Mexico.

After 1983, the growth rate of the current-account imbalances of the G-7 countries – the Group of Seven, consisting of the United States, Japan, West Germany, the United Kingdom, France, Italy, and Canada – was faster than that of the total imbalances of all industrialized nations,[2] which itself was faster than that of all countries of the world. The largest contributors to these imbalances were the huge deficit of the United States and the surpluses of Japan and West Germany. The magnitude of the shifts in those balances and the extent to which the United States has become a net importer of funds (from the net exporter it once was) can be seen from the latter country's capital account (Table 1-4).

All of these imbalances have had consequences for the internationalization of financial markets and for financial innovation. In particular, the need to recycle petrodollars after the first oil shock was a tremendous stimulant to the development of Euromarkets and to the expansion of the international activities of banks. And the recent imbalances among the industrialized nations has been a stimulus to financial innovation, as financial institutions have looked for new ways to recycle funds.

Changes in Domestic Regulation

The growing external imbalances among countries have prompted some governments to eliminate some or all of their controls on capital flows in order to facilitate the recycling of funds from countries with surpluses to those with deficits. As well, some governments with budgetary deficits have liberalized their domestic markets in order to improve their ability to raise funds. As regulatory changes in some countries have strengthened the international competitive position of their institutions or markets, other countries have also sought to revise their regulation, in part to preserve markets in their own countries and in part to enable their own institutions to compete. Some changes in regulation have also been motivated by the desire to keep pace with modifications in other countries, in an attempt to avoid losing out to foreign competition.

The late 1970s and early 1980s were marked by sweeping regulatory changes in many countries. Those changes dealt with the organizational structure of financial institutions, their ownership and powers, the pricing of deposits and loans, the development of new instruments, and the freedom to move funds into and out of the country. For the most part, the major outcome was not so much to affect the overall level of regulation as it was to modify the way in which markets were regulated – "re-regulation," as some have called it. Much of the new regulation had profound implications for the pace of internationalization and for the spread of financial innovation. Of particular importance were the removal of capital and exchange controls, which allowed the increase in cross-border capital flows, and the removal of restrictions on the use of certain classes of financial instruments, which enabled innovation to proceed.

These developments took place throughout much of the Western industrialized world. The United Kingdom, after relaxing and even abandoning foreign-exchange controls in the late 1970s, introduced major regulatory changes to its financial markets in the 1980s. The "Big Bang," imple-

Table 1-4

Balance on Capital Account, United States, 1980-88

	1980	1981	1982	1983	1984	1985	1986	1987	1988[p]
					(Millions of U.S. dollars)				
Total balance[1]	–34,515	–31,373	–30,179	+32,232	+76,872	+94,670	+117,404	+135,503	+118,784
With the United Kingdom	–1,673	–6,631	–1,638	+17,320	+17,076	+31,414	+42,675	+65,098	+12,885
With Japan	–579	+1,721	–3,889	+3,678	+14,445	+25,859	+25,891	+20,955	+42,665

1 A negative sign indicates a capital outflow; a positive sign denotes an inflow.
SOURCE U.S. Department of Commerce, *Survey of Current Business*, various issues.

mented on 27 October 1986, resulted in the opening-up of the London securities markets to greater competition.[3] The changes also included the establishment of the Securities Investment Board (SIB), the strengthening of self-regulatory agencies and of the supervisory role of the Bank of England, and attempts to regulate the heretofore relatively free Eurobond markets.[4]

In France, interest-rate ceilings, foreign-exchange controls, and impediments to the development of new instruments and practices were removed. The regulatory changes in that country will culminate at the end of 1991 with greater access to the Bourse – the Paris stock exchange – by nonindustry participants and foreign institutions.

Those trends were also observed elsewhere. Regulatory changes have been implemented in West Germany – particularly in Frankfurt, its main financial centre – although trading in some specific instruments is still not allowed. Australia underwent major changes with the removal of barriers between various segments of its financial markets and with the opening-up of domestic markets to foreigners; the entry of foreign institutions has recently been subjected to some restrictions, however.

In the United States, the last of the interest-rate ceilings were removed by 1985. There is little or no impediment to cross-border capital flows or to the introduction and development of new instruments and processes. However, the barriers between different sectors of financial activity – between banking and securities trading, for example – have not yet been abolished, and limits on interstate banking continue to exist. Institutions are continually testing new ground, and the regulatory authorities are allowing some institutions to bypass existing regulations on a case-by-case basis.

Canada has not had any foreign-exchange controls since the Second World War, and interest-rate ceilings were removed in 1967. An ambitious and painstaking overhaul of financial regulation was commenced in 1987. That reform is aimed at broadening the powers of financial institutions and eliminating the restrictions preventing the ownership of institutions of one "pillar" by institutions of another.

All of those changes have led to a degree of convergence between the financial regulations of the industrialized countries and have facilitated the operation of financial institutions across national boundaries.

Increased Volatility

The regulatory changes took place in an environment of heightened price volatility in many financial markets. The late 1970s and early 1980s were characterized by greater and more rapid movements in interest and exchange rates, particularly when compared with the quieter 1960s and early 1970s (Chart 1-5). First of all, the replacement, in the early 1970s, of the Bretton Woods Agreement with a system of flexible exchange rates that were more responsive to market forces paved the way for continuous changes in the relative prices of currencies. The dramatic rise in inflation in the 1970s – which resulted, to some extent, from countries holding down the value of their currency in a competitive bid to boost their exports – brought with it higher and more volatile interest rates. A shift in the conduct of monetary policy towards controlling the quantity of the money supply, while letting interest rates find their own level in response to market forces, also contributed to increased price volatility in the bill and bond markets. At the same time, prices on stock markets became more volatile on a day-to-day basis. The greater volatility of prices and interest rates increased risks for participants in international financial markets. Many of the new instruments that emerged in the late 1970s and early 1980s were developed in response to the needs of participants to control such risks.

Technological Developments

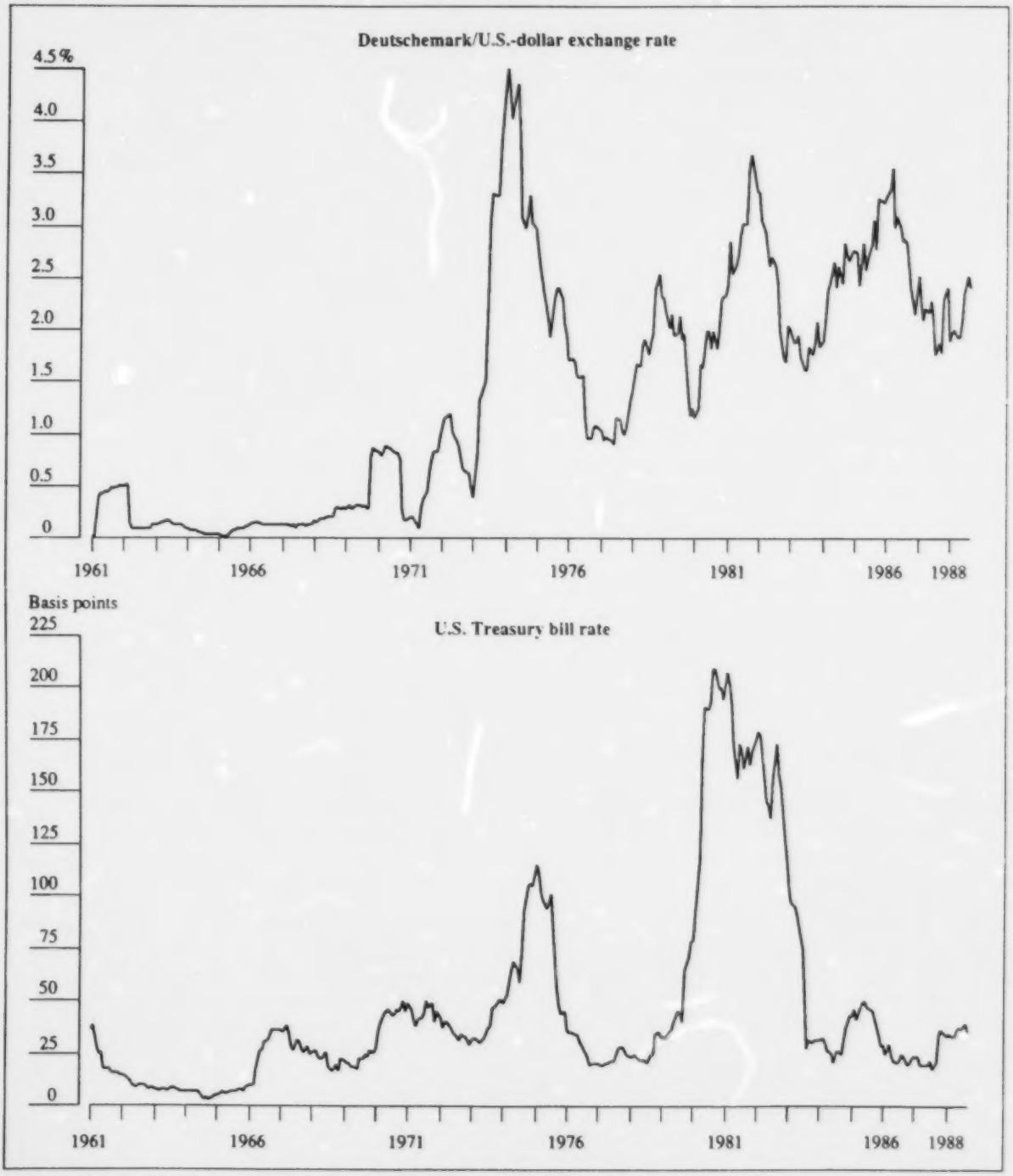
Advances in communication and information-gathering and -processing technology have facilitated the dual process of internationalization and financial innovation. With computers and satellites, funds can be transferred almost instantly all over the world. Trading on major foreign exchanges and in many securities can now be done from the desk terminals of traders anywhere in the world. Technological advances have made possible the rapid increase in arbitrage between various markets – particularly between the cash and futures markets – thus enhancing their liquidity and reducing price differences.

The development of computers enables market participants to store increasingly larger amounts of data and to handle the information collected more quickly. It also enables fund managers to reassess their positions almost continuously and to move faster towards desired portfolios. The phenomenal increase in the capacity to store information, recalculate prices and interest rates, and make projections with respect to portfolio positions has been a catalyst in the development and spread of new instruments and processes, such as options and program trading.

The factors that underlie much of the globalization of financial markets and financial innovation lie outside the control of Canadians. Thus the appropriate response is to adapt to the changes taking place. That process of

Chart 1-5

Variability[1] of Two Financial Indicators of the United States, 1961-88



1 Measured as the 12-month moving average of the monthly absolute variation in the rates.

SOURCE Estimates by the Economic Council of Canada, based on data from the Bank of Canada.

adaptation requires an understanding of the opportunities and risks associated with these changes, and it creates the need to make sure that regulatory structures in Canada are properly coordinated. With the growth of internationalization, however, the regulatory structures of other nations have a substantial impact on Canada, and this country therefore has an interest in promoting the coordination of prudential supervision between nations.

New Opportunities and New Risks

Financial innovation and internationalization bring clear benefits to both the users of financial services and the financial institutions themselves. At the same time, they carry costs, largely in the form of increased risks. They also decrease the transparency of the financial system and make the supervision of financial markets more difficult.

Opportunities

Innovation, internationalization, and the establishment of foreign institutions in domestic markets open new horizons for institutions, investors, and borrowers. These developments enable borrowers and investors to manage their risk exposure better and to gain access to markets that they could not tap directly otherwise. They provide borrowers and investors with the ability to construct debt and asset portfolios with the interest rate, currency, maturity, and risk characteristics that best fit their individual needs. At least theoretically, all of this enhances the efficiency of the financial system, lowers the overall cost of funds to the economy, and increases the risk-adjusted returns available to investors.

To date, these benefits have, for the most part, only been available to large, "high-quality" borrowers such as governments, financial institutions, and large corporations, and to large investors. One of the challenges is to spread the benefits of internationalization and financial innovation to other sectors of the economy.

Risks

Internationalization and financial innovation can, in many cases, lead to greater (or different) risks being taken by market participants; they can also increase the risk of market instability. If these risks are not properly managed, losses may occur and costs may be imposed on market participants, as well as on the economy as a whole.

In the operations of banks in international financial markets, and possibly in some domestic markets as well, market intermediation has increased as a proportion of all business, while the share of financial intermediation has declined. This has resulted in a shift in the kinds of risks they assume: position risk (associated with the potential impact of a change in interest or exchange rates on their financial position) has become more important, while credit risk (associated with the financial situation of the counterparty to a contract) has become relatively less so. Traditionally, banks have been more knowledgeable about how to deal with the latter than they have been with the former.

A much more important aspect of the risks associated with globalization and financial innovation arises from a loss in the transparency of the financial system. The greater complexity involved in such activities as borrowing, lending, hedging, and securitization – and the increasing internationalization of these activities – has resulted in many transactions moving outside the domain of traditional domestic regulation. The lack of information about the nature and volume of transactions, as well as about the parties involved in swaps or futures transactions, has reduced the transparency of financial systems around the world, including in Canada.

Of particular concern are the growing off-balance-sheet commitments of banks and the failure of a number of countries to require their financial institutions to report such items in full. An additional concern is that regulators are only beginning to develop procedures to evaluate adequately the risks involved. The very significant international component of many off-balance-sheet commitments requires cooperative international efforts for the solution of transparency problems.

Coordination of Prudential Supervision

Management of the world economy raises the issues of the international harmonization of policies and regulations and of closer cooperation among national regulators and authorities. Some cooperation in the worldwide supervision of financial institutions does exist under the auspices of the Bank for International Settlements. International cooperation in the regulation of the securities business is less advanced, however.

But the need for cooperation and coordination is not limited to the international sphere. For Canada to benefit fully from the changes brought about by the new trends in financial markets, the federal and provincial governments must work together to remove internal barriers to trade in financial services and to ensure that regulation does not give a

competitive advantage to any institution or group of institutions, wherever they may operate in Canada.

Canadians in an Integrated World

The extent to which Canadians will benefit from internationalization and financial innovation will depend on their participation in world markets and on their ability to deal effectively with the risks involved.

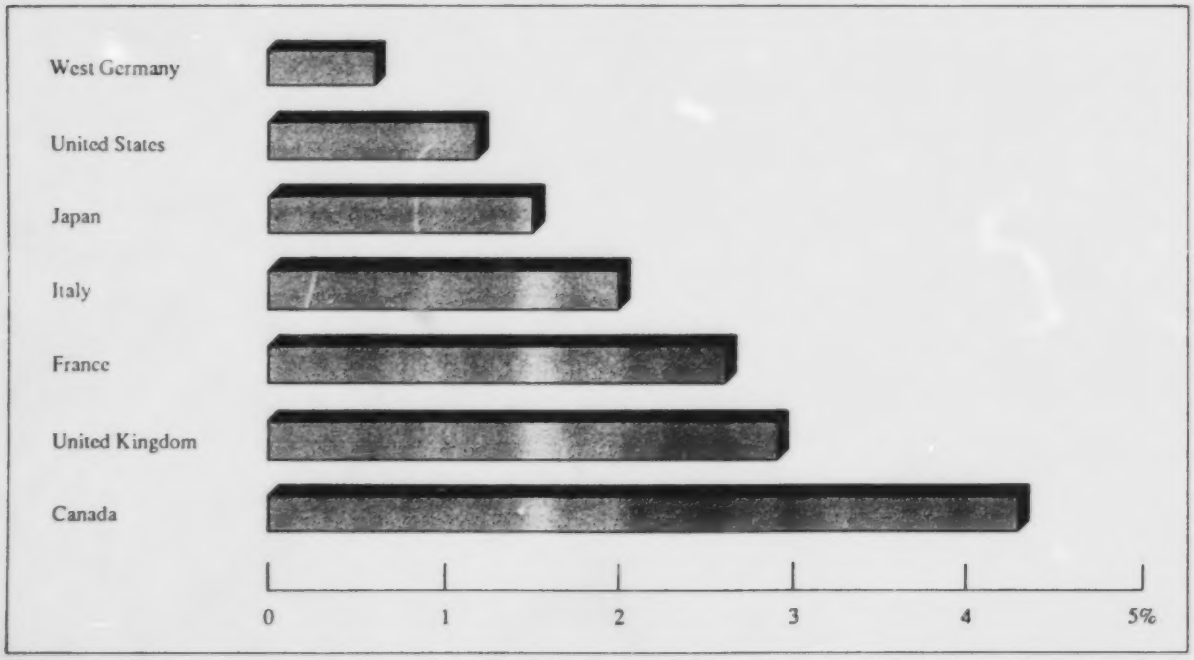
Canadians have made extensive use of foreign capital throughout their history – at first from the United Kingdom and later from the United States; and so, net cross-border capital movements (i.e., the difference between total inflows and total outflows) have always been important. More recently, however, there has been a dramatic increase in both inflows and outflows – i.e., in gross cross-border capital movements. In 1970, for example, Canadian residents sold 1.4 billion dollars' worth of Canadian bonds to foreigners and purchased 160 million dollars' worth of foreign bonds, but in 1988 those figures climbed to $71 billion and $33 billion, respectively. Transactions in other securities have also risen sharply. While those increases result in part from the fact that the maturity of the debt has been shortened, the surge in cross-border capital flows is undoubtedly part of the general trend towards the internationalization of financial transactions.

Relative to the size of their economy, Canadian borrowers raise a significantly larger quantity of new funds on international markets – US$24 billion in 1986 – than do those of most other large industrial countries (Chart 1-6), and that share has been growing since the 1960s. The United States, with a gross domestic product over 10 times that of Canada, raised only US$56 billion in 1986.

Despite this increased presence in world financial markets, Canadian borrowers have not made extensive use of some innovative instruments. The combination of these two phenomena is not necessarily the result of deficiencies in Canadian institutions. Among the factors that have led Canadian borrowers to flock to world markets have been their desire to diversify their sources of funds and the kind of crowding-out – displacement of borrowers – that can occur in a relatively small economy. The size of the econ-

Chart 1-6

Funds Raised on International Markets as a Proportion of GDP,[1] G-7 Countries, 1982-87



1 Based on annual averages.

SOURCE Estimates by the Economic Council of Canada, based on OECD, *Financial Statistics Monthly*, Part 1, and *National Accounts of OECD Countries*, various issues.

omy also makes it more difficult to sustain a liquid market for some securities and for futures and options.

Nonetheless, there are grounds for concern about the performance of Canadian institutions in the growing international financial markets, where they have been losing market share.

The need for Canadians to adapt to the changes in international financial markets is emphasized by the fact that financial innovation, the internationalization of financial markets, and the penetration of domestic markets by foreign institutions are not temporary phenomena. They have changed the configuration and the operations of financial systems around the world and have improved their efficiency; thus they are unlikely to fade away. The turbulence experienced by markets at the end of 1986 and in 1987 did not significantly affect those long-term trends.

Internationalization and financial innovation hold the promise of large benefits, but they also portend the imposition of costs. The challenge for Canadians is to initiate strategies and policies that will maximize the opportunities while limiting the costs.

2 The Canadian Environment

The rapidly changing international financial environment presents challenges for Canadian policymakers – challenges that are influenced by the current structure of the financial system in this country. In analysing the impact of those recent changes on the Canadian economy, first we set the stage by reviewing briefly the role played by a financial system in an economy. Then we describe the producers – the financial institutions, some of which have been part of the Canadian and international scene since well before Confederation[1] – and users (individuals, corporations, and governments). The configuration of the Canadian financial system is determined, to a large extent, by the regulatory framework under which it operates. A review of that framework and of the directions for change therefore concludes the chapter.

The Role of the Financial System

The financial industry receives a great deal of attention from policymakers and analysts in Canada because it plays a crucial role in the national economy.[2]

The institutions that comprise the industry are part of our daily lives, and they are also our financial link with the rest of the world. Here our pay cheques are deposited or cashed, money withdrawn for everyday expenses. Here also, we Canadians borrow money to buy a house or a car, or to invest in a business venture. The institutions are also where major transactions occur that affect the cost and uses of money, the location and scope of industrial development projects, the value of the Canadian dollar – in effect, the rate and direction of the country's economic growth and the welfare of its citizens.

More analytically, the financial system performs four functions: the intermediation of funds and risks; the safekeeping of funds; the maintenance of a payments system; and the diffusion of information.[3]

An intermediary in the financial system – normally a financial institution – transfers funds from savers to those who wish to use the funds for investment purposes or for consumption. For example, a bank intermediates funds when someone makes a deposit and the bank then lends those funds to a second party. This is referred to as financial (or indirect) intermediation, because the intermediary issues its own financial instrument as part of the transaction. The other form of intermediation – market (or direct) intermediation – occurs when the intermediary arranges the transaction but does not issue its own instrument. This form of intermediation occurs, for example, when a securities dealer arranges for the purchase by an investor of the stocks, bonds, or other security instruments issued by a firm or government raising funds. The intermediation of funds enables investors to dissociate their investment decisions from their savings decisions – i.e., it enables them to undertake projects without having to use their own savings to finance them.

As with the intermediation of funds, risk can be transferred through either market or financial intermediation. Quite often, the intermediation of funds and risks is performed simultaneously. Thus, when a bank loans money to a business firm, the movement of funds from its depositors to the borrower is an example of the intermediation of funds. However, since the shareholders of the bank – rather than the depositors who supplied the funds – bear most of the risk of the loan, risk intermediation also occurs, as risk is transferred from depositors to shareholders. Risk intermediation need not entail the transfer of funds as part of the transaction. Fire, theft, and accident insurance contracts are examples of risk intermediation without the transfer of funds. (The premium payment in such a case is not funds being intermediated but rather is the fee paid to the insurer for bearing the risk.) The guarantee provided for mortgages under the National Housing Act is also an example of risk intermediation, while the granting of the mortgage by a bank is an example of fund intermediation.

The safekeeping of funds enables individuals, firms, and governments to keep their temporary surpluses of funds in safe locations.

The maintenance of a payments system involves the management of a deposit-transfer mechanism and the issuance, movement, and clearing of cheques. Just as the transportation system transfers goods from sellers to buyers, the payments system transfers funds from buyers to sellers of goods and services. In Canada, the payments system is operated by the financial institutions that belong to the Canadian Payments Association, with the ultimate

settlements being made through the transfer of balances with the Bank of Canada. For international transactions, payments instructions are forwarded through the communications facilities of the Society for Worldwide Interbank Financial Telecommunication (SWIFT), with settlements being made through balances in foreign correspondent banks.

The supply of information – an output of the financial system that is often overlooked – has grown in importance, thanks to the rising number of financial products and market participants, and to the growing complexity of financial transactions and of the stakes involved. Financial institutions provide much-needed information on the various financial products available. For example, they offer analyses of the bonds and stocks that are available on markets, of interest rates and asset prices, of the variables that influence the value of assets (such as the rate of economic growth, inflation, and the balance-of-payments position), and of the prospects for various industries and companies. They are also important providers of international financial information to investors and borrowers.

While the finance, insurance, and real estate sector accounts for about 14 per cent of Canada's gross domestic product and 6 per cent of total employment in the country, it is its indirect contribution to the economy, through the performance of those four roles, that matters most. Without the intermediation of funds, companies would find it difficult to finance their daily operations and their investment in plant and equipment, and consumers would be unable to make payment in any form other than cash for many of their most important purchases. Without a stable payments system, the exchange of goods and services within the Canadian economy would be a far more cumbersome process than it is now. In performing the above functions, of course, the financial system also provides an important channel for the implementation of government stabilization policies – monetary policy, in particular. Jobs and wealth creation throughout the economy depend on the financial system performing its roles efficiently.

How the financial sector performs those roles can be viewed from both a private and a public perspective.

From a private perspective, the industry performs its role efficiently when the private decision-making process leads to allocational and operational efficiency. Allocational efficiency requires that a financial intermediary channels savings and allocates funds on the basis of expected risks and returns. Those projects with the highest risk-adjusted rates of return should be financed first, while those with the lowest rates of return should be at the bottom of the list or should not be financed at all. Operational efficiency requires that the financial system effects this process of channelling and allocation of funds at the lowest cost possible. For a financial system to operate efficiently from a private perspective, markets must be competitive, and financial institutions must benefit from the confidence of the public at large.

From a public perspective, a financial system operates efficiently when, in addition to meeting the criterion of private efficiency, it responds to the needs of society as a whole. The channelling and allocation of funds should then take into consideration all social costs and benefits. The system should provide means of payments that are commensurate with the needs of the economy, and all Canadians should have reasonable access to all financial services. Among other things, the regulatory structure should place no artificial restrictions on access – e.g., by prohibiting some classes of financial institution from selling certain products of other financial institutions.

In addition, the financial system could operate efficiently from a private point of view and yet exclude a large number of Canadians. For example, a calculation of private costs and benefits by participants in financial markets could result in certain parts of the country finding themselves without adequate financial services. Moreover, the potential customers of financial institutions might consider that the private benefits expected from purchasing services from those institutions do not justify the price that they would have to pay. They might then refrain from using the financial system and hoard their savings in forms that would not provide competitive returns. In some cases, the financial system might not provide a socially adequate level of financing to certain sectors of the economy, and government intervention might then be called for, particularly to assist in the development of new means of financing. The development of the money market and term lending are instances of government intervention of this kind. The provision of adequate lending to small firms – the "middle market" – is an example where government intervention is sometimes required. Competition and the accompanying availability of information and confidence remain important conditions for the achievement of social efficiency, but a third condition must be added – namely, the accessibility of financial services.

The Suppliers of Financial Services

The Canadian financial system is organized according to the so-called "pillar" system, in which the major financial functions are performed by separate categories of institu-

tions. The original pillar system, based on separate regulation and separate ownership of four broad categories of financial institutions, was put into place in the wake of the Great Depression. Before that time, there was no separation between banking and securities activities, and the banks were the most important underwriters of government and corporate securities. The pillar system was aimed at restoring confidence in the financial sector, following the severe blow it had received in the 1930s. The authorities believed that separating securities dealing from banking would enhance confidence in the payments system and, along with the separation between trust activities and banking, would minimize the occurrence of conflict-of-interest situations, which can also reduce confidence in the financial system. While financial regulation has undergone significant changes in recent years, the basic structure of the system is still along the lines of the original four pillars.

Canada's Major Groups of Financial Institutions

The chartered banks are the largest group of financial institutions, measured by the value of their assets (Table 2-1). Traditionally, they have been involved in financial intermediation, accepting deposits and redirecting the funds throughout the economy, mainly in the form of personal and commercial loans and mortgages.

There are currently two classes of chartered banks in Canada, falling under Schedules A and B of the Bank Act.[4] The seven banks listed in Schedule A of the act are widely held by Canadians – i.e., under the law, no single shareholder may control more than 10 per cent of any class of voting shares; they have about 7,000 branches from coast to coast and provide services to both large and small businesses, as well as to individuals in all walks of life. These banks have subsidiaries and representative offices in many countries, where they engage in various activities (including deposit-taking and lending). Between 22 and 46 per cent of the assets of the largest Schedule A banks are denominated in foreign currencies (Table 2-2).

The 58 Schedule B banks are closely held; all except one (the Laurentian Bank) are owned by foreign institutions. The foreign-owned banks are much smaller than most of their Canadian-controlled counterparts (Table 2-3). They have few branches: only 10 foreign banks had more than four branches in early 1988, while 19 had only one establishment in Canada – the head office of the subsidiary. Thus the Schedule B banks are not in a good position to serve the retail market for deposits and loans; instead, they seek to build their customer base on the segment of the market made up of large firms and special groups. In 1987, however, two foreign-owned banks – Lloyds Bank of Canada and the Hongkong Bank of Canada – gained limited access to the retail market by purchasing the branches and most of the assets of two Schedule A banks (the Continental Bank and the Bank of British Columbia, respectively) that had experienced financial difficulties.

Table 2-1

Assets of Various Categories of Intermediaries in the Financial Sector, Canada, December 1987

	Value of assets (Millions of dollars)
Chartered banks (Schedule A)[1]	365,858
Trusteed pension plans[2]	143,562
Life insurance companies	120,224
Trust companies[3]	89,958
Mortgage loan companies[4]	77,460
Local credit unions and *caisses populaires*	55,060
Chartered banks (Schedule B)	46,676
Mutual funds[5]	27,765
Property and casualty insurance companies	25,341
Financial corporations	20,191
Segregated funds of life insurance companies[6]	15,002
Investment dealers	14,732
Central credit unions and *caisses populaires*	13,583
Business financing companies	7,358
Financial leasing companies	5,109
Closed-end funds[5]	1,401

1 Worldwide assets, excluding those of mortgage loan companies associated with Schedule A chartered banks.
2 Includes assets of both public- and private-sector plans, which amounted to $73,854 million and $69,708 million, respectively.
3 Excluding estate, trust, and agency activities.
4 Includes real-estate investment trusts and mortgage investment companies.
5 Total assets at cost.
6 Total assets at book value.

SOURCE Statistics Canada, *Financial Institutions: Financial Statistics*, Cat. 61-006, third quarter 1988; *Trusteed Pension Funds: Financial Statistics*, Cat. 74-201, 1987; *The Canada Gazette*, Part I (25 February 1989), Supplement.

Deposit-taking institutions, among which banks are the most important, employ the largest number of workers in the financial industry. Moreover, they experienced healthy employment growth of 4.7 per cent annually between 1984 and 1988 (Table 2-4) – i.e., the same rate as that recorded for the total financial sector and well above the 2.9 per cent observed for the economy as a whole over the same period.

Insurance companies constitute the second largest "pillar." The funds collected by life insurance companies

Table 2-2

Total Assets and Foreign-Currency Assets of the Major Schedule A Banks, Canada, December 1988

	Total assets	Proportion of assets in foreign currency
	(Millions of dollars)	(Per cent)
Bank of Montreal	78,135	43.1
Bank of Nova Scotia	77,061	45.6
Canadian Imperial Bank of Commerce	94,837	29.7
Canadian Western Bank	286	0.4
National Bank of Canada	30,835	22.7
Royal Bank of Canada	110,938	28.9
Toronto-Dominion Bank	61,741	28.6

SOURCE *The Canada Gazette*, Part I (25 February 1989), Supplement.

Table 2-3

Total Canadian Assets of the 10 Largest Foreign-Owned Schedule B Banks, Canada, December 1988

	Total assets
	(Millions of dollars)
Lloyds Bank of Canada	5,124
Hongkong Bank of Canada	4,714
Citibank Canada	4,296
Barclays Bank of Canada	2,290
Swiss Bank Corporation (Canada)	1,895
Banque Nationale de Paris (Canada)	1,698
National Westminster Bank of Canada	1,614
Crédit Suisse Canada	1,433
Morgan Bank of Canada	1,428
Crédit Lyonnais Canada	1,078

SOURCE *The Canada Gazette*, Part I (25 February 1989), Supplement.

through premiums and the sale of annuities are invested in personal and commercial mortgages, and in government and corporate bonds and stocks. More than half of the 165 companies active in that sector in Canada, accounting for 18 per cent of the assets of the life insurance industry in 1987, are foreign-owned. Property and casualty insurance companies also invest the proceeds from the sale of general insurance contracts in bonds, stocks, and mortgages. These companies are of relatively smaller size, and many of them are linked to foreign corporations.

The powers of trust companies, which were originally created to administer estates and trusts and to act as transfer agents for companies, were gradually extended over time to include deposit-taking as well as mortgage and commercial lending. In the 1960s, they were among the most important originators of mortgages and financed their activities mainly through term deposits. In the 1970s, with the banks entering the residential-mortgage market after the Bank Act revisions of 1967 and with trust companies offering deposits of all kinds, these two groups of institutions came into direct competition with each other with respect to both the services that they offer and the way in which they raise money. Trust companies still differ from banks in that they are less involved in personal and commercial lending and are the only institutions that can provide fiduciary services. Trust companies also have fewer branches than banks – just under 1,500 in 1987 – and, with the exception of one or two, they have very limited activities abroad.

Banks, trust companies, and insurance companies are mainly involved in financial intermediation. The size of a firm's assets gives a good indication of the amount of intermediation undertaken. Securities firms, on the other hand, are primarily market intermediaries, arranging for the direct purchase, by the providers of funds, of the financial instruments issued by those who seek financing. As a result, the extent of that intermediation cannot be well measured by the relatively small size of the assets of these companies.

Securities firms play an important role in the Canadian economy. As underwriters, they arrange for corporations to raise new capital – both equity and debt – through the sale of stocks and bonds, and they assist governments in raising the cash they need through the sale of bills and bonds. As brokers, they act as intermediaries in the purchase and sale of bonds and stocks on behalf of their customers, on both domestic and foreign markets. As dealers, they trade out of their own portfolio and maintain markets in a number of securities. In doing so, they help the smooth functioning of secondary markets, where outstanding issues of stocks, bonds, and other financial instruments are sold. Without the liquidity provided by the secondary markets, it would be both more difficult and more costly for businesses, governments, and individuals to raise new capital. The largest firms have subsidiaries and representative offices in several countries and are active participants in the London Euromarket. This sector experienced the largest jump in employment between 1984 and 1988, with an average annual rate of increase of 18.1 per cent. However, there have been some lay-offs in the securities industry, particularly following the 1987 stock market crash. The long "bull" market, the growth of derivative products, and the securitization process have all contributed to this rapid growth. Until mid-1987, most securities firms were Canadian-owned, mostly by partners active in the business. Foreign firms were only

Table 2-4

Employment in the Finance, Insurance, and Real Estate Industry, Canada, 1984-88

	1984	1985	1986	1987	1988	Average annual rate of increase 1984-88
			(Thousands)			(Per cent)
Banks and other deposit-taking establishments	220.9	239.0	247.1	255.0	265.5	4.7
Other credit agencies	18.6	17.5	16.5	15.9	17.4	-1.5
Securities brokers and dealers	14.1	14.7	16.5	24.6	26.3	18.1
Investment and holding companies	32.3	27.3	30.2	36.2	40.3	6.6
Insurance carriers	91.4	90.1	95.2	94.5	94.9	1.0
Insurance and real estate agents	158.8	167.9	171.6	186.6	199.9	6.0
Total	536.1	556.6	577.2	612.8	644.4	4.7

SOURCE Statistics Canada, *Employment, Earnings and Hours*, Cat. 72-002, various issues.

active in limited segments of the market – such as the so-called "exempt" market in Ontario, where government bonds and large blocks of other securities, with a value of $150,000 or more, are traded.[5]

Often called the fifth pillar, the local *caisses populaires* and credit unions – of which there are more than 3,700 in Canada – provide banking-like services to many communities, gathering funds through deposits and through the issuance of cooperative shares, and investing those funds mainly in personal, mortgage, and small-business loans.

The Other Institutions

While the five groups of institutions mentioned above account for about 80 per cent of the total assets of all financial firms in Canada, other institutions also perform important functions, although they are active in more limited segments of the financial market. Pension funds – a rapidly growing segment of the financial industry in recent years – invest contributions from workers and employers in domestic bonds, mortgages, and stocks. Mutual funds and closed-end funds have emerged over the years to pool the resources of individuals and invest them in both domestic and foreign money-market instruments, bonds, mortgages, and stocks. Mutual funds have grown rapidly in recent years, while closed-end funds have been less successful.

Finance companies provide funds for the purchase of "big ticket" items and the inventories of retailers. Small loan companies supply personal loans, often to individuals with a low credit rating and at high cost. Mortgage loan companies, many of which are owned by banks, provide mortgage financing through the issuance of term deposits. Leasing companies are involved in the provision of financial leasing contracts to companies; factoring firms purchase the accounts receivable of companies at a discount and then take over their collection. Venture-capital firms and merchant banks provide more-risky capital to companies in the form of unsecured debt or equity capital. Finance, consumer-loan, and business financing companies were the only segment of the financial-services industry to experience a decline in employment over the period 1984-88.

In addition, the late 1970s and early 1980s witnessed the emergence and rapid growth of financial holding groups, as the owners and managers of financial institutions sought the most efficient ways of diversifying their operations and of offering their customers a wider range of financial services, often at a single point of sale.[6] These groups brought together insurance and trust companies, mutual funds, merchant banks, securities firms, and, more recently, banks. For example, Royal Trust, London Life, and Wellington Insurance are associated with each other through the holdings of Trilon, which is itself a subsidiary of Brascan. The Laurentian Group controls Laurentian Mutual, Imperial Life, the Laurentian Bank, and Laurentian General Insurance. With assets of over $30 billion, the *Mouvement des caisses populaires Desjardins* is the largest financial holding group in the country. The group includes many local *caisses populaires*, as well as the Desjardins Trust, l'*Assurance-vie Desjardins*, *La Sauvegarde*, *l'Assurance générale Desjardins*, *le Crédit industriel Desjardins*, and *la Société d'investissement Desjardins*.

The International Financial Connection

Historically, Canada was open to the rest of the world since well before the forces of internationalization brought domestic financial systems closer together. Canada has always allowed capital to flow across its borders almost totally unfettered, except in times of war or with respect to investment related to ownership, particularly in some key sectors. For many years, first through the Foreign Investment Review Agency and currently through Investment Canada, equity investment by foreigners that would transfer control of existing enterprises out of Canada has been subject to review and, at times, to some restrictions. Many large domestic projects, such as the Canadian Pacific Railroad, were financed from abroad. Canada has been a net importer of funds for many years (Table 2-5).

Some international transactions consist of a simple transfer of funds and perhaps an exchange of currencies. Others involve lending or borrowing, or arranging for the sale of stocks or bonds to foreigners or to Canadians. More-complicated transactions may call for the institution to arrange a financing deal for a Canadian corporation. Financial institutions, either Canadian or foreign, take part in all of these transactions. But Table 2-5 shows just the tip of the iceberg. The categories of transactions shown are net flows – i.e., total outflows minus total inflows, for each category. Of equal or greater interest are the gross flows. For example, gross portfolio transactions involve all sales of securities by Canadians to foreigners (a capital inflow) and all sales of securities by foreigners to Canadians (a capital outflow); together, the gross flows are many times greater than the net flows.

But not all financial transactions have an international component, and an important distinction must be made between financial services that are currently tradable on international markets and those which are not. The former – which include large deposits, loans to larger corporate clients, bonds, and stocks – involve instruments that may involve a cross-border movement of funds. They form what is commonly referred to as the wholesale market – i.e., the market that involves large borrowers and large investors.

The retail market, which serves small and medium-sized borrowers and depositors, is currently part of the non-tradable sector. As a result, it is less directly affected by internationalization than is the wholesale banking market. Currently, residential mortgages are also nontradable financial products. That, of course, is expected to change over time. Indeed, a growing proportion of the retail market will become tradable, particularly with the development of asset-backed securities and the penetration of domestic markets by foreign banks. In addition, improved technology – e.g., the introduction of automatic banking machines that gives retail customers access to any financial institution hooked into the network – may bring even more of the retail activities into the tradable sector.

Within the total business of Canadian banks, assets that are currently tradable accounted in 1987 for 57 per cent of

Table 2-5

Capital Account of the Balance of Payments,[1] Canada, 1960-88

	1960-64	1965 69	1970-74	1975-79	1980-84	1985	1986	1987	1988
					(Millions of dollars)				
Direct investment									
In Canada	+2,285	+3,326	+4,125	+1,785	–2,625	–2,801	+1,550	+4,750	+4,881
Abroad	–465	–850	–2,525	–7,120	–17,274	–4,800	–4,525	–6,300	–7,897
Net portfolio transactions	+1,939	+4,213	+4,902	+27,045	+36,935	+11,471	+22,329	+11,643	+12,713
Other capital movements	+835	–726	–1,584	+14,090	+5,512	+3,673	–5,529	+3,451	+2,041
Total	+4,594	+5,963	+4,918	+35,800	+22,548	+7,543	+13,825	+13,544	+11,738
					(Per cent)				
Net capital movements as a proportion of GDP	2.1	1.7	0.9	3.2	1.2	1.6	2.7	2.5	2.0

1 A plus (+) sign indicates an inflow of capital, while a minus (–) sign indicates an outflow.

SOURCE Statistics Canada, *Quarterly Estimates of the Canadian Balance of International Payments*, Cat. 67-001, various issues.

total assets; and currently tradable liabilities, for 58 per cent of total liabilities. Much of the tradable business is denominated in foreign currencies. For example, when only Canadian-currency business is considered, the retail market in 1987 accounted for over 80 per cent of their loan business and 75 per cent of their deposits. Institutions face different market conditions, depending on whether they operate in markets for internationally tradable or nontradable financial services. For example, they may face intense competition in the tradable sector but may dispense services in a more-protected environment in the nontradable sector. Users of financial services may also have different opportunities, depending on whether they have access to the markets for internationally tradable services.

The Users of Financial Services

Individuals, corporations, and governments turn to the financial sector to obtain the funds that they need to finance their consumption or the purchase of real assets and to invest their surplus funds. The total financial assets of individuals, nonfinancial corporations, and governments in Canada amounted to about $1.4 trillion in 1987; total financial liabilities were $1.7 trillion. The financial assets were held mainly by the household sector (which owned 62 per cent of them), followed by corporations and governments (which owned 24 and 14 per cent, respectively). On the other hand, households (including unincorporated business) were responsible for the smallest proportion of liabilities (18 per cent). The corporate sector was responsible for over 55 per cent of liabilities – a share much larger than its share of financial assets. The share of liabilities attributable to the government sector (27 per cent) was somewhat above its share of assets.[7]

The Household Sector

Households turn to financial institutions for the safekeeping of their funds and for the investing of their surpluses. In 1987, there were close to 32 million personal savings accounts – a number much larger than the Canadian population. Banks dominate the market for personal deposits, well ahead of trust and mortgage loan companies, local credit unions, and *caisses populaires* (Table 2-6). Eighty-seven per cent of adult Canadians had one or more savings accounts, while 32 per cent had shares in financial cooperatives and 60 per cent had life insurance policies. Only some 18 per cent of adult Canadians owned shares in companies, and barely 9 per cent of them held corporate or government bonds (excluding Canada Savings Bonds).

Table 2-6

Deposit Accounts, by Category of Institution, Canada, December 1988

	Amount	Distribution
	(Millions of dollars)	(Per cent)
Chartered banks[1]	239,705	61.6
Trust and mortgage loan companies[2]	97,356	25.0
Local credit unions and *caisses populaires*	52,133	13.4
Total	389,194	100.0

1 Total deposits held by the public in Canadian dollars.
2 Excludes the mortgage subsidiaries of Schedule A banks.
Source *Bank of Canada Review* (April 1989); and Statistics Canada, CANSIM database.

Households also require financing to purchase consumer goods, houses, and financial assets. Canadians live in approximately 9 million dwellings, of which over 60 per cent are owner-occupied; almost half of these owners have a mortgage on their home. Banks and trust companies are the two most important suppliers of mortgages, while credit unions and *caisses populaires*, as well as life insurance companies, are also quite active in this market (Table 2-7).

Table 2-7

Residential Mortgage Credit Outstanding, by Category of Lender,[1] Canada, December 1988

	Amount	Distribution
	(Millions of dollars)	(Per cent)
Chartered banks	75,218	40.8
Trust and mortgage loan companies	57,340	31.1
Local credit unions and *caisses populaires*	26,896	14.6
Life insurance companies	12,997	7.0
Pension funds	7,888	4.3
Sales-finance and consumer-loan companies	772	0.4
Other financial institutions	3,279	1.8
Total	184,390	100.0

1 Excluding public financial institutions; unadjusted data.
Source *Bank of Canada Review* (April 1989); and Statistics Canada, CANSIM database.

Table 2-8

Consumer Credit Outstanding, by Category of Lender, Canada, December 1988

	Amount	Distribution
	(Millions of dollars)	(Per cent)
Chartered banks (total personal loans)	56,040	65.8
Trust and mortgage loan companies	7,029	8.3
Local credit unions and *caisses populaires*	10,209	12.0
Life insurance company policy loans	2,725	3.2
Sales-finance and consumer-loan companies	6,216	7.3
Department stores	2,900	3.4
Total	85,119	100.0

SOURCE *Bank of Canada Review* (April 1989); and Statistics Canada, CANSIM database.

Banks clearly dominate the market for personal loans (Table 2-8).

The Business Sector

Businesses need commercial loans and other sources of funds to finance their day-to-day operations and their investment in new plant and equipment. Trade credit and other short-term financing amounted to about $112 billion in 1987; bonds, to $60 billion; and commercial mortgages, to $42 billion. Banks are the most important supplier of business loans, accounting for almost 85 per cent of loans outstanding at the end of 1988 (Table 2-9). While internal cash flow covers a substantial amount of the financing needs of businesses, particularly with respect to their daily operations, bond and equity finance is required for growth (Table 2-10). Internally generated cash flow generally falls short of the outlays for the acquisition of nonfinancial assets by about 3 to 15 percentage points of total funds required, although in one year the shortfall was negligible, and in another it was as high as 29 percentage points. Debt is the most important source of corporate financing for small and medium-sized firms, while shareholders' equity increases in importance with firm size. Smaller firms use short-term debt to a greater extent than larger firms.[8]

Businesses also have funds to invest. Cash or treasury management is an important part of the services provided to businesses by financial institutions. The market for bankers' acceptances, for example, owes its development not only to the funding needs of firms but also to their need for a short-term investment vehicle.

Table 2-9

Business Loans Outstanding, by Category of Lender, Canada, December 1988

	Amount	Distribution
	(Millions of dollars)	(Per cent)
Chartered banks	72,802	84.4
Trust and mortgage loan companies[1]	4,538	5.2
Local credit unions and *caisses populaires*	6,958	8.1
Mortgage loan companies associated with chartered banks	1,975	2.3
Total	86,273	100.0

1 Excluding the mortgage subsidiaries of Schedule A banks.

SOURCE *Bank of Canada Review* (April 1989); and Statistics Canada, CANSIM database.

Different Institutions Meeting Different Needs

To meet their investment and funding needs, households and businesses can use a diversity of instruments supplied by various financial institutions. The markets served by specific financial firms – where markets are defined in terms of instruments and of the end users of these instruments – are determined by the competitive strategies of these firms and by their own human, technological, and financial resources, as well as by the regulatory framework in place. For example, the dominance of the banks in the business loan market is attributable to their network of branches, to their expertise, and to regulation that prevents trust and life insurance companies from being active in this market (outside Quebec).

The Markets for Financial Services

The diversity, quality, and price of financial services obtained by the customers of financial institutions depend, among other factors, on the degree of competition in financial markets. In the absence of direct observation, the level of market concentration is one of the few proxies available

Table 2-10

Sources and Uses of Funds, Nonfinancial Private Corporations, Canada, 1980-87

	1980	1981	1982	1983	1984	1985	1986	1987
				(Per cent)				
Sources of funds								
Internal funds	48.1	33.6	46.9	72.9	66.4	72.8	60.3	59.9
Bonds	3.8	7.6	6.4	7.1	2.7	3.0	4.1	3.4
Equity	10.0	9.3	8.6	14.6	15.1	17.8	19.1	12.8
Other[1]	38.1	49.5	38.1	5.4	15.8	6.4	16.5	23.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Uses of funds								
Acquisition of nonfinancial assets	64.2	63.1	70.4	76.8	68.2	73.9	69.9	65.9
Acquisition of financial assets	35.8	36.9	29.6	23.2	31.8	26.1	30.1	34.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
				(Millions of dollars)				
Total funds	55,701	71,175	44,194	41,821	58,217	60,828	68,268	82,784

1 Includes trade payables, loans, finance and other short-term paper, mortgages, and claims on associated enterprises.

SOURCE Based on Statistics Canada, *Financial Flow Accounts*, Cat. 13-002, various issues; and *Financial Flow and National Balance Sheet Accounts*, Cat. 13-214, 1987.

to assess, albeit very imperfectly, the degree of competition. Even when there is market concentration, institutions may behave in a competitive fashion if there is a continuous threat of new entries in the market – in other words, if markets are "contestable." In the current context of the growing internationalization of financial markets, institutions may operate in rather highly concentrated domestic markets but continuously face the threat of competition from foreign sources.

With these caveats in mind, some interesting results can be observed from an analysis of concentration in the financial-services industry. In a previous report, the Council indicated that the level of concentration varied by markets – being relatively low in the mortgage market and relatively high in the personal and business loan market – and that it had declined, except in the mortgage market, between 1979 and 1984.[9]

A recent update of the study shows that while there was some decline in the share of assets controlled by the four largest financial institutions (all Schedule A banks) between 1984 and 1987, there was not much overall change in the level of concentration in the financial-services industry. Concentration in this industry is still higher than in most other areas of economic activity.[10] For example, in 1987 the four largest firms among banks, trust and mortgage loans companies, insurance companies, and credit unions and *caisses populaires* controlled 45 per cent of the total assets of that group of institutions (Table 2-11). The corresponding figures for the food, wood and related products, and transportation-equipment industries were 16.8, 25.2, and 43.1 per cent.

However, the recent spate of mergers and takeovers in the financial-services industry – and, in particular, the growth of holding groups – appears to have had some small but interesting effects. These mergers and takeovers have resulted in an increased number of fairly large holding groups. Thus, while the share of assets of the four largest institutions declined after 1984, the number of firms that accounted for 80 per cent of assets in 1987 was smaller than in 1984. This result points to the growing importance of holding groups, but gives a somewhat ambiguous message with respect to changes in concentration.

Table 2-11 sets out several different ways of measuring concentration. In some of the methods, foreign as well as domestic assets are included whereas in others, foreign assets are excluded. Also, the estate, trust, and agency (ETA) business of trust companies can be either included or

Table 2-11

Concentration of Assets among Major Groups of Financial Institutions,[1] Canada, 1979-87

	Proportion representing the four largest companies with respect to:				Number of companies needed to account for 80 per cent of:			
	Total assets		Domestic assets		Total assets		Domestic assets	
	Without ETA[2]	With ETA	Without ETA	With ETA	Without ETA	With ETA	Without ETA	With ETA
	(Per cent)							
1979	53.1	45.0	47.7	39.4	13	14	16	17
1984	50.4	41.0	42.2	35.7	16	15	21	19
1987	45.4	36.4	39.8	35.5	14	14	18	15

1 Full ownership links and holding groups are taken into account.
2 ETA = estate, trust, and agency business.
SOURCE A. Mayrand, "La concentration dans le secteur financier canadien – une mise à jour, 1989," a background paper prepared for the Economic Council of Canada.

excluded. In all cases, the trends are the same. The method chosen does, however, have a bearing on which firms are ranked among the four largest institutions and on the share of assets they hold. If both ETA and foreign assets are included, then a financial holding group that includes a trust company would have been one of the four largest institutions in 1987. If only domestic assets are considered and if ETA assets are excluded, the four largest institutions that year would still have been Schedule A banks, but their share of domestic assets would have been smaller than their share of combined domestic and foreign assets. If ETA assets were included, then two holding groups would have been among the four largest institutions.

While asset concentration is a measure of the power wielded by the institutions because of their size, one may better assess their ability to control prices, the quantity of services they offer, and their characteristics by measuring the degree of market concentration.

In 1987, concentration in the mortgage market remained lower than in other financial markets (Table 2-12). The four largest institutions – two Canadian banks and two financial holding companies – accounted for somewhat less than 35 per cent of mortgages outstanding. However, both measures of concentration – the share of the four largest firms and the number of companies accounting for 80 per cent of the market – indicate that the level of concentration rose between 1984 and 1987. The growth of financial holding companies, as well as the merger of two trust companies that were very active in this market, contributed to this increase in concentration.

Table 2-12

Concentration in Selected Markets among Major Groups of Financial Institutions,[1] Canada, 1979-87

	Proportion of activities represented by the four largest companies in:			Number of companies needed to account for 80 per cent of the market in:		
	Mortgages	Domestic deposits	Domestic personal and commercial loans	Mortgages	Domestic deposits	Domestic personal and commercial loans
	(Per cent)					
1979	29.9	53.8	70.0	23	9	5
1984	32.6	47.7	62.7	20	12	7
1987	34.9	45.3	59.4	16	11	7

1 Full ownership links and holding groups are taken into account.
SOURCE Mayrand, "La concentration dans le secteur financier."

The share of domestic deposits and domestic personal and commercial loans that is attributable to the four largest firms continued to decline between 1984 and 1987, although these markets remain highly concentrated. In 1987, the four largest institutions shared between them almost 60 per cent of the markets for domestic personal and commercial loans; seven institutions accounted for 80 per cent of those markets. The number of firms that accounted for 80 per cent of both the markets for domestic deposits and for domestic personal and commercial loans had remained almost unchanged since 1984. The figures were higher than in 1979, however. But the decline in the degree of concentration was larger between 1979 and 1984 than in recent years.

An interesting feature of the changes in concentration in the three markets considered during the period 1979-87 is that the more highly concentrated markets became somewhat less concentrated, while the less concentrated markets became more concentrated. These effects can be related, to some extent, to the growth of holding groups and to some merger activity, which increased the number of fairly large firms. These institutions were able to capture an increasing share of the highly concentrated loan and deposit markets. On the other hand, the institutions that became part of holding groups had been very active in the less-concentrated mortgage market; and as they merged or became members of holding groups, the number of institutions accounting for a substantial portion of this market declined.

In *A Framework for Financial Regulation*, we pointed out that the decline in the degree of market concentration between 1979 and 1984 could turn out to be short-lived if the development of financial holding companies were to accelerate through mergers and acquisitions. Our updated examination of the data confirms that financial holding companies have continued to grow more rapidly than the banks.

Should merger and acquisition activity in the financial sector continue, this could lead to a reversal of the recent trends in concentration. But such a reversal would have to be viewed in the context of the continued internationalization of financial activities, especially in the wholesale market.

Many of the mergers and acquisitions that affect the degree of market concentration have been, if not induced, at least facilitated by recent changes in domestic regulation.

The Regulatory Structure

Regulation plays an important economic role. Its main objective is to enhance the private and public efficiency of the financial sector.

In dynamic financial markets, the three major conditions that must be met to attain social efficiency – competition, confidence, and accessibility – interact with one another, and each has a different impact on the achievement of that goal. For example, while competition is healthy, it may create financial difficulties for a number of institutions by reducing their capital base or even causing them to fail. The resulting reduction in the number of market participants might in turn limit competition; at the same time, the financial difficulties experienced by one institution could have a ripple effect and adversely affect public confidence in the operation of the entire system. While the failure of a bank could, from a private point of view, be a sign that markets are functioning properly by weeding out losers, it could, in some circumstances, jeopardize not only the well-being of the bank depositors and shareholders but an entire local economy. There is no inherent characteristic of the functioning of financial markets that would permit the resolution of trade-offs between competition, confidence, and accessibility by letting the various market forces follow their own course. Some checks and balances are needed, and that is the purpose of regulation. Regulation should be viewed as a tool used to achieve the public-policy objectives of competition, confidence, and accessibility – and, through them, the highest possible level of efficiency within the financial system.

A Changing System

The division of powers embedded in the Canadian constitution has resulted in the regulation of financial institutions being shared by two levels of government. The chartered banks fall under the exclusive purview of the federal government. Securities activities are regulated at the provincial level. Both levels of jurisdiction share responsibility for the regulation of life insurance, general insurance, and trust companies, and for pension funds, credit unions, and *caisses populaires*,[11] depending on the jurisdiction in which individual institutions are incorporated.

The Quest for Diversification — Canada has traditionally followed a "regulation by institution" (or "pillar") approach, in which it is the institution as a whole that is regulated, regardless of the financial functions that it performs. In the 1950s and 1960s, most of the major institutions limited themselves to the performance of a single function, and thus regulation by institution was, perhaps as much by accident as by design, regulation by function. By the late 1970s and early 1980s, however, the situation had begun to change. Institutions were diversifying into other functions, but the different categories of institutions – the banks, the trust and insurance companies, and the securities firms – were

regulated by separate authorities, and cross-ownership was limited by law.

The quest for diversification was stimulated by the attempts of financial institutions to meet competition on domestic and international markets, to respond to their customers' needs, and to make more efficient use of their capital base. The trust companies had already diversified into the banking field, and they wanted extended lending powers in both the consumer and the business markets in order to achieve a better match between their liabilities and their assets. The banks sought entry into the securities area in order to offer their Canadian customers the same range of service that they could provide abroad and to prevent loss of business. Before June 1987, the banks could not underwrite corporate securities in Canada, even though they could do so in international markets. As securitization began to spread, many firms that had previously financed their operations with bank loans began to issue securities directly. Thus if the banks were to be prevented from acting as underwriters in Canada, this business would be lost to them. They were also challenged in their traditional market by the life insurance companies, which were already offering close substitutes for deposits. All of these developments brought pressures for an overhaul of the existing regulatory framework. For some categories of financial institutions – such as trust and life insurance companies – legislation had not been updated for over half a century.

New Directions — Canada is currently in the midst of important changes to the regulation of financial activities.[12] The federal government, which has been working since the early 1980s on major modifications to Canada's financial regulatory framework, released a blueprint for change in December 1986.[13] Legislation has been amended to incorporate some of the proposed changes – dealing mainly with the supervision of financial institutions. An opening-up of the securities industry has also been accomplished through the concerted efforts of the federal and provincial governments. The more fundamental changes with respect to powers and ownership are still at the drafting stage, however. In Ontario and Quebec, legislation dealing with trust and insurance companies has also modernized financial regulation in those provinces, generally by expanding investment powers, imposing prudent investment rules, and enhancing the powers of the regulatory authorities.

Thus a new system is emerging. It is a modification of the "pillar" system, based on the principles of separate ownership and separate regulation of financial institutions. The new pieces of legislation that have been passed or that are in preparation are likely to continue to limit each of the four broad categories of financial institutions to the performance of a major function, in order to facilitate the supervision of each category by an expert authority and to shield individual firms from any problems that might occur within related companies.

But only one of the two major characteristics of the pillar system – the separation of ownership – has been removed. Banks and federally incorporated trust and insurance companies are now permitted to own securities firms and will be allowed to own institutions in any of the groups other than their own, including institutions incorporated at the provincial level. Some provincially incorporated trust and insurance companies can now own other financial institutions. Some banks have bought into existing securities firms, and some have announced their intention to set up trust subsidiaries when the legislation is changed to allow it.

At the same time, a number of current legislative proposals would expand the powers of financial institutions. For example, the limits on personal and business lending by trust companies and life insurance companies would be raised. This would further blur the distinctions within the classification of financial institutions.

Ownership rules are also being modified. The 1986 federal proposals would allow institutions with no commercial links and with a capital stock of less than $750 million to be closely held. Those with a larger capital base would be required to have no less than 35 per cent of their capital stock widely held. Existing Schedule A banks with capital in excess of $750 million would remain subject to the 10-per-cent rule, but the rule would no longer apply to newly established Schedule A chartered banks. While small banking institutions could be closely held, the larger ones would only have to follow the 35-per-cent rule. The ownership test would apply at the highest level of ownership – i.e., the parent company in the case of direct subsidiaries, or the financial holding company. Until now, there have been no restrictions on the ownership of large trust and insurance companies. Under the proposals, however, companies with a capital stock greater than $750 million would have to follow the 35-per-cent rule. This would force some of those companies to divest themselves of part of their assets over time.

Commercial ownership of financial firms would continue to be restricted. In the case of existing institutions with capital in excess of $50 million, nonfinancial interests would not be permitted to acquire an ownership position of more than 10 per cent or to increase a share already at, or above, that limit. There would be no ownership restrictions for companies with less than $50 million in capital. Upon reaching that threshold, however, the acquiring company would be subject to the 35-per-cent rule. Existing compa-

nies with a capital base greater than $50 million would have to comply with the 35-per-cent rule over time. The upstream links between financial and nonfinancial corporations is the aspect of the federal proposals that has been subject to most debate. At the time of writing, the proposed changes to ownership legislation are under review by the federal government. The provinces of Ontario and Quebec have adopted a much more relaxed approach to financial/commercial links. (See Appendix B for a fuller discussion of this issue.)

Harmonization and Coordination within Canada

The ownership issue is a prime example of an area where there is a lack of harmonization of financial regulation across Canada and where different approaches to the supervision of financial institutions and to the development of financial activity have been taken by different jurisdictions. The absence of harmonization and coordination is attributable, of course, to the existence of different levels of jurisdiction and to different levels of economic and financial development across the country.

As we have seen, different types of institutions frequently conduct fundamentally similar, if not identical, functions, but their activities are subject to different types of regulation and supervision. Institutions may, through cross-ownership or holding companies, be involved in several distinct financial activities, with each of these activities being subject to a different regulatory authority.

There are many differences in legislative approach between the 11 jurisdictions that now regulate one or more aspects of the financial industry in Canada; within the same jurisdiction, there are also differences between the laws that govern different categories of institutions. For example, there are different minimum capital requirements for Schedule A banks, Schedule B banks, federally incorporated trust companies, trust companies incorporated in Quebec, and so on.

Ownership restrictions based on the nature of the institution also vary between jurisdictions. In addition, there are differences in the rules pertaining to the ownership of one financial institution by another. For example, in the Quebec legislation (and in the federal proposals), cross-pillar diversification through the downstream ownership of financial institutions is permitted; however, Ontario legislation restricts the type of subsidiary that a trust company may own.

While chartered banks, trust companies, credit unions, and *caisses populaires* are all deposit-taking intermediaries, they do not enjoy the same investment powers. The investments of federally incorporated trust and life insurance companies in corporate bonds or equities must currently meet certain quality tests at the time of purchase. The proposed changes in federal legislation would introduce the "prudent investor" approach, under which these quality tests would be replaced by the requirement that the whole portfolio be "prudently managed." The Quebec legislation governing trust and insurance companies already follows a "prudent investor" rule, and British Columbia is currently contemplating its adoption. The Ontario legislation for trust companies includes a "prudent investor" rule but also attaches a list of eligible investments.

The treatment of related-party transactions also differs among jurisdictions. Ontario bans such transactions outright, while Quebec has a selected list of prohibited transactions. British Columbia intends to adopt a more permissive approach by allowing all related-party transactions but requiring that they be consistent with usual business practice and that they reflect market value.

With so many legal differences with respect to ownership, investment powers, capital requirements, and the treatment of related party transactions, financial institutions wishing to operate in more than one province must adapt to different requirements, often at great expense.

In designing financial regulation, provincial governments understandably tend to be concerned with the immediate employment and investment opportunities that may result within their own territory from supporting the growth of indigenous financial institutions. Thus the Laurentian and Desjardins groups have been important beneficiaries of the Quebec legislation. The support of provincial activities is probably also at the root of Quebec's disagreement with the federal government over commercial/financial links and of its early opposition to the implementation of the 1987 agreement between Ontario and the federal government on the regulation of the securities industry. Some Western provinces have given significant freedom to their own provincially based institutions, in an attempt to encourage their participation in the financing of local economic activity.

While such competitive regulation has its costs, there is no denying that the existence of different jurisdictions has contributed to the modernization of financial regulation in the country. Quebec has been a leader in many areas, in particular with respect to changes in the pillar system aimed at allowing greater diversification of the activities of financial institutions.

But the financial world has changed radically in recent years, and that transformation has increased both the costs

and the risks of competitive regulation. Domestic firms that must absorb additional costs in complying with different and inconsistent regulatory frameworks within Canada are adversely affected in their cost structures. Those same factors may also discourage some foreign firms from establishing a presence in Canada. Perhaps more important, however, is the fact that with the rapid progress of globalization and innovation, the solvency risks that were implicit in a fragmented approach to regulation and supervision may well be much greater today than they were even a few years ago.

The differences in legal treatment would be of less concern if the regulatory authorities cooperated more effectively with one another. Cooperation would involve some rationalization in the administrative requirements pertaining to operations and solvency, but also – and just as important – a more effective exchange of information on an ongoing basis.

The nature and degree of cooperation between the various regulatory authorities are uneven at present. With the exception of one or two provinces, there appears to be a continuing exchange of information between provincial securities commissions, and there are efforts to harmonize prospectus and registration requirements, as well as operating rules. The Investment Dealers' Association – the self-regulatory body of the security industry – plays a unifying role across the country.

The provincial superintendents of insurance companies meet on a regular basis and, in recent years, have been joined by their federal counterpart. They deal mostly with supervisory issues rather than with the harmonization of regulations.

There is less cooperation in the supervision and regulation of trust companies, credit cooperatives (credit unions and *caisses populaires*). In Ontario, for example, the "treatment of equals" clause in the provincial trust legislation requires that companies incorporated elsewhere but with operations in the province comply with some Ontario regulations in their overall operations. This has irritated other provinces and may have led to a lack of cooperation in some instances.

The Canada Deposit Insurance Corporation (CDIC) – the federal agency that ensures the deposits of federally incorporated institutions and participating provincially incorporated firms – could help to foster coordination by setting standards (with respect to such matters as capital adequacy, solvency, and liquidity ratios) for member institutions. Such standards have yet to be implemented, however. Moreover, the CDIC often relies on other regulatory and supervisory authorities to conduct the examination of insured institutions. As a result, inspections are often not uniform from one jurisdiction to another.

More generally, recent experience has shown that some authorities feel that they should not volunteer information to other jurisdictions, particularly with respect to firms that face financial difficulties. This belief is dictated by what is perceived to be a legal obligation towards the company that supplies financial information on its operations and by the fear that other jurisdictions might overreact. The cost associated with a poor flow of information can be very high, however.

Differences between Countries

Given the growing internationalization of financial activities, differences in regulatory systems between countries assume greater importance. In modifying its own system, Canada must walk a fine line and implement changes that will enhance the efficiency of its domestic financial industry without straying too far from developments abroad. Since Canada's financial institutions operate in both domestic and international markets, if they are prevented from performing certain functions at home that their international competitors can perform in their home markets, they may find themselves at a competitive disadvantage abroad – and even at home, where they must face the Canadian subsidiaries of foreign financial institutions.

While other countries are also changing their regulatory systems and while these changes are producing a degree of international convergence, important differences remain. Some countries – West Germany and Switzerland, for example – have a "universal" banking system, in which institutions may offer any type of financial service; others, such as Japan and the United States, have a "pillar" system. Some, like West Germany and Japan, do not limit commercial/financial links, while others, like the United States, only partially allow such links. West Germany, Japan, and France continue to restrict the development of innovative instruments; the United States, Canada, and, more recently, the United Kingdom place very few restrictions on the introduction of new financial products.

Because of the changes that are occurring elsewhere, Canada's relative position is continually shifting. Whereas this country used to be viewed as quite restrictive in its separation of financial functions, it is less so today, especially when compared with the United States, which has been slow to revise its regulation of the banking and

securities business. To some extent, at least, the regulatory structure in Canada is moving towards what is often regarded as the European norm, with banks increasingly becoming involved in the securities sector. Unlike institutions in many European countries, however, Canadian banks must segregate their securities and banking activities by means of a subsidiary. In the United States, the separation decreed by the Glass-Steagall Act of 1933 is being circumvented by the growing diversification of institutions that are taking advantage of the fact that the act contains a very narrow definition of banking as the simultaneous involvement in deposit-taking and commercial lending. For example, some institutions that are not involved in commercial lending offer deposits or deposit-like instruments, such as the cash-management accounts of securities firms, which have been allowed by the Federal Reserve and upheld in the courts. Several amendments to the Glass-Steagall Act have been tabled in the Congress; none has yet been enacted. As it now stands, a gradual entry of commercial banks into the securities area may be permitted, if not through legislative changes, then at least on a case-by-case basis, by the Federal Reserve Board. Thus, in a decision handed down in January 1989, the Federal Reserve authorized five large U.S. bank holding companies to engage in limited securities underwriting and dealing (in corporate bonds, immediately; and in corporate equities, after a review, to be held in 1990). Diversification must take place within a holding-company framework in order to respect the principle of corporate separateness, and banks are still prohibited from entering the insurance field. In Canada, the ownership of insurance companies by banks would be allowed under the federal proposals.

Open-Door Policy

Many countries use the regulation of financial institutions to limit cross-border transactions and to keep foreigners at bay. Canada, on the other hand, has long had an open-door policy with respect to the cross-border flow of financial products and services, and there have been no foreign-exchange or capital controls since the Second World War. Canada has had some restrictions on the entry of foreign institutions, although these barriers have been much less severe than in many European countries or Japan. Canada has also treated the *de novo* establishment of foreign subsidiaries differently from the acquisition of existing Canadian institutions by foreign-based firms. A more detailed discussion of these issues will be found in Chapter 5.

Restrictions still exist on the range of investments available to tax-exempt institutions. In order to benefit fully from their tax-exempt status, for example, pension funds may not invest more than 10 per cent of their assets in foreign securities.[14] The reason for imposing the limit was to provide a source of funds for Canadian industry. It is often argued that since pension funds are exempt from income tax on their earnings (except on foreign investment above the 10-per-cent limit) and since contributions (within certain limits) are deductible from the income of either the pension-plan member or the sponsor for taxation purposes, they therefore receive a "benefit" and in exchange ought not to feel too burdened by being restructured in their foreign investment.

From a theoretical perspective, however, it is not clear that the tax exemptions enjoyed by pension funds constitute a "benefit." One school of thought holds that retirement benefits are deferred wages and therefore ought to be taxed, as indeed they are, when they are received by retirees. In this sense, there is no "benefit" from tax exemptions. Even if the "deferred wages" theory is rejected, the public-good nature of pensions may be viewed as compensating society for the loss of tax revenue from pension-plan members: by providing a certain level of retirement income for their members, pension plans reduce the possibility that their members will call upon public sources of retirement income and other social programs.

The restrictions on foreign investment by pension funds imposes a burden on them and, ultimately, on their members and sponsors, inasmuch as it prevents them from achieving the highest possible risk-adjusted rate of return through international diversification of their portfolios.

Because Canada does not have any restriction on the operations of its institutions overseas, Canadian banks and securities firms have been able, in the past, to engage in activities abroad from which they were barred in domestic markets. An example is the involvement of the major Canadian banks in the underwriting of securities in foreign countries, not only on behalf of governments, but also on behalf of private corporations. Technically, the banks could only engage in those operations through subsidiaries but not through branches, as the latter are a legal extension of the company and must comply with Canadian regulatory requirements. It is not clear, though, that domestic regulators would enforce domestic laws on branches abroad should a violation of that rule occur.

For a number of years, the United States has had a relatively liberal policy with respect to the establishment of non-U.S. institutions on its soil. Foreign banks, securities dealers, and insurance companies have been allowed to operate in many parts of the country. In fact, until 1978,

when the International Banking Act was put into effect, foreign banks were able to simultaneously participate in banking and securities activities. Since some of the banking legislation fell under the purview of the states, however, several of them did not allow the establishment of foreign institutions. The 1978 legislation, while "grandfathering" some of the foreign institutions that were already in place, generally obliged subsidiaries of foreign firms to abide by the Glass-Steagall Act.

Other countries are not as liberal in their approach. West Germany, France, and Japan have had many restrictions on the establishment and operations of foreign institutions. It is only recently that these countries have allowed non-residents to participate in a larger number of activities.

Regulation is changing not only in Canada but in many industrial nations because many of the forces at work in financial markets have themselves been changing. Financial innovation and internationalization have had a direct impact on competition, confidence, and access to financial services, and the trade-offs between these criteria are being modified as a consequence. The impact of those changes is the subject of the next three chapters.

3 Innovation in International Financial Markets

Changing conditions in any sphere of activity open new opportunities for businesses that are attuned to the needs of their customers. The developments that have taken place in both international and domestic financial markets have prompted financial institutions to provide their clients with innovative products. Over the past 15 years, they have developed a large number of new instruments. Many of these instruments have become such an intrinsic part of the financial landscape that they have, paradoxically, lost their aura of novelty. Interest-rate and currency swaps, which enable borrowers to gain access to new markets, have fundamentally changed the way in which international financial activity is conducted and have become commonplace. Futures and option contracts, which allow for a better management of risks – and even mortgage-backed securities, which increase the liquidity of secondary markets and which became popular only a few years ago – are now familiar instruments in the financial marketplace. But even as market participants rapidly become accustomed to the innovative instruments already in use, new instruments are being developed as the process of innovation continues. And at the same time, instruments that have lost their appeal for a variety of reasons sink into oblivion.

The purpose of this chapter is to describe the most important classes of innovative financial instruments and practices, and to analyse their impact. Of necessity, the discussion will be quite technical, as the instruments and practices are themselves typically rather complicated. The reading of Chapters 4 to 6 does not require an understanding of the details of financial innovation contained here, and so readers who are not interested in the details may wish to skip Chapter 3. Some of the recommendations in Chapter 7, however, are based on details contained in this chapter.

The Concept of Innovation

Webster's International Dictionary defines innovation as "something that deviates from established doctrine and practice." Although it is couched in very general terms, this definition embodies a time dimension that is very important to the concept of innovation. Schumpeter, a leading theorist of innovation in the economic area, gave the word a narrower scope, defining it as "changes in the supply of goods and services," including the introduction of new products, technological changes in the production of commodities already in use, and access to new markets or new sources of supply.[1]

Schumpeter also made a very clear distinction between innovation and invention. Invention – a rare occurrence – is the introduction of previously unknown products or processes. Innovation is more evolutionary. It often involves the adaptation of an existing product or process, with the novelty flowing from the new use that is made of it. The spinning wheel, the telephone, and computers are inventions because they are revolutionary in their impact. Some might even include interest-rate and currency swaps in that category, although they are treated here as innovations.

The evolutionary view is also expounded in the Cross Report, published in 1986 by the Bank for International Settlements.[2] The report defines financial innovation as the "unbundling" and "repackaging" of the characteristics of financial instruments, including yield, price, credit risks, maturity, and so on.

According to Schumpeter, the innovation cycle is characterized by three phases: the innovation process itself; the entrepreneurial adaptation of the innovation; and the familiarization (or spread) of innovation. The first phase is seen as a burst of creativity that is not necessarily marketable per se – e.g., the ground-breaking article on the pricing of options, published in 1973.[3] The second phase consists of the successful commercialization of the innovation. To continue the same example, the use of the option-pricing model in developing the portfolio-insurance strategy is a case in point. Commercialization is the most active and most profitable part of the innovation process. During the third phase of the process – familiarization – imitators replicate the innovative instruments, and the profits enjoyed by the innovator slowly evaporate.[4]

Historically, there have been relatively few inventions in the financial industry. Among the more salient examples are the invention of commercial banking by merchants and goldsmiths between the 13th and 15th centuries, the creation of the first central bank in the 17th century, and commodity futures, introduced in the 18th century in Japan and

in the mid-19th century in Chicago. Most of the new instruments and practices that have recently attracted the attention of policymakers, market participants, and academics fall within the category of innovations.

The main financial innovation in the postwar period was the development in the 1960s of the Eurodollar market – i.e., the market outside the United States for deposits and debt instruments denominated in U.S. dollars. This was followed, in the early 1970s, by the introduction of securitized mortgage debt; currency futures appeared in 1973; while financial futures were first developed in 1975, it was only during the period 1979-81 that the market for these instruments reached full strength. Swaps (of currencies and interest rates, among others) and note-issuance facilities emerged in the early 1980s; forward rate agreements, exchange-traded currency and interest-rate options, collateralized mortgage obligations, and securities backed by car loans and credit-card receivables have also been introduced during the 1980s. These are the instruments on which we focus in this chapter. Because they were largely developed in the United States and other foreign markets, the following discussion will, of necessity, deal mainly with events abroad.

Several factors have combined to make financial markets a favourable environment for innovation since the mid-1970s. These factors are related to the growing internationalization of financial markets; the regulatory and taxation structure, particularly in the United States; and the development of new computer and communications technology.

A major element of the internationalization of financial markets has been the need to recycle into the United States the surplus funds accumulated in West Germany and Japan. This, together with the growing financing requirements of borrowers (in both the public and private sectors of many countries), provided a stimulus for the development of new instruments that gave access to the new markets. In addition, the volatility of interest and, in particular, of exchange rates created risks for the growing number of those using those markets; and that, in turn, created new opportunities for the development of instruments that provided some degree of protection against risk.

As increasing numbers of borrowers and lenders gained access to markets around the world and could be served by institutions from a number of different countries, and as banks and securities houses expanded their presence in many countries as well, competition increased. That growth in competition also prompted financial institutions to develop new instruments in an attempt to better serve their clients' needs.

The relaxation of rules prohibiting the use of certain kinds of instruments in a number of countries opened their markets to various innovative products, thus acting as a driving force in the quicker adaptation of innovation. But restrictive regulation can also provide opportunities. Innovative instruments were often developed in direct response to the costs imposed on investors and borrowers by regulation and taxation. For example, differences in the tax treatment of debt and equity instruments led to the development of hybrid instruments that blended the more certain return on debt with the more favourable tax treatment of equity.

Finally, advances in computer and communications technology – another factor underlying internationalization – made possible the commercialization of many innovative products.

The new financial instruments did not appear in all countries simultaneously. The United States has been a fertile ground for the development of innovative products and processes over the past 25 years. Many of the instruments that have been used in that country for more than two decades, such as commercial paper or certificates of deposits, only made their appearance in Japan and Europe within the last few years. In the 1950s and 1960s, major differences existed between North American financial markets and those in most other countries. In Canada and the United States, capital flowed across international boundaries almost unfettered, as financial regulations were aimed primarily at protecting the consumers of financial products. Interest rates were not subject to any controls, except for certain narrow categories (such as interest rates on demand deposits in the United States). Japan and most European countries, however, had extensive capital controls at that time; interest rates were also controlled in many countries. Regulation limited the range of instruments that could be brought to market.

In the freer North American environment, new instruments (such as bankers' acceptances) and new markets (the so-called "money markets," for example) were developed to serve the needs of borrowers and lenders and to allocate capital efficiently among alternative uses. Pressures grew in the early 1970s to liberalize financial markets in a number of countries around the world – notably in Japan and Western Europe. This led to the development of new instruments and practices in those areas. Some of these products were very similar to those already existing on North American markets; others were designed to take advantage of new information-processing and communications technology; others still were completely new and were meant to meet the new conditions brought about by the waves of deregulation and re-regulation surging through capital markets in many countries.

The new instruments and processes can be divided into three broad categories:

- market-broadening instruments, which increase the liquidity of markets and the availability of funds by attracting new investors and offering new opportunities for borrowers;

- risk-management instruments, which reallocate financial risks to those who are less averse to them or who have offsetting exposure, and who are presumably better able to shoulder them; and

- arbitraging instruments and processes, which enable investors and borrowers to take advantage of differences (or "spreads") in costs and returns between markets, and which reflect differences in the perception of risks, as well as in information, taxation, and regulation systems.

Most instruments will contribute simultaneously to the broadening of markets, the management of risks, and arbitraging between markets. The classification above is based on the major role played by an instrument. For example, while an instrument may increase the liquidity of markets and assist in the management of risks, if it is mainly used to arbitrage between markets, it will fall in the third category.[5]

Market-Broadening Instruments

Market-broadening instruments include **note-issuance facilities** and other underwritten instruments; **Euro-commercial paper** and **floating-rate notes**, which provide an alternative to bank loans on international markets; and **asset-backed securities**, which are aimed at enhancing the liquidity of customized financial contracts, such as mortgage, car, and commercial loans.

Major Euromarket Instruments

Note-Issuance Facilities

The emergence of NIFs – short-term paper that is backed and underwritten by banks – in the early 1980s was linked to the deterioration of the credit ratings of banks and to the capacity of multinational corporations and governments to tap markets directly at a better rate than their banks could offer them, because their own credit ratings were higher than those of the banks. With NIFs, the banks were able to maintain a business relationship with their clients, who also believed it was in their interest to maintain such links in case markets became unfavourable again and they found themselves in need of short-term bank financing. In addition, NIFs freed the issuing corporation from the worry that its issue might not sell well, since the underwriter would then provide its back-up and the company would still receive the funds it needed. The need to hedge against the risk of an adverse turn in markets was seen as being particularly important when firms financed their operations or investments with short-term borrowing programs that had to be renewed every six, nine, or 12 months.

The first publicly announced note-issuance facility was arranged for the government of New Zealand in 1981. Barely two years later, the total volume of NIFs reached US$3.5 billion. It surged to US$34.4 billion in 1985. Since then, the market has retreated to US$25 billion in 1986 and to US$13.2 billion in 1988.

The decline of this market was caused, among other things, by the inclusion of NIF-underwriting commitments in the measurement of capital adequacy – first by the Bank of England and subsequently by the Japanese, U.S., and West German authorities – which significantly raised the cost of offering such facilities. In addition, because of the ease with which NIF issuers could sell their notes, prime-quality borrowers came to believe that underwriting commitments were unnecessary and only made borrowing more costly. As a result, these borrowers lost interest in NIFs and the banks became less active in that market; note-issuance facilities were gradually replaced by non-underwritten issues – in particular, by Euro-commercial paper.

Euro-Commercial Paper

Euro-commercial paper is a spinoff of the commercial paper developed in the United States. It carries a maturity of 7 to 365 days and is issued in high denominations – usually a minimum of $100,000. It is not underwritten by the intermediary, who only provides a commitment to place the paper on a best-effort basis.

ECP issues surged from US$12.6 billion in 1985 (19 per cent of all short- and medium-term borrowing in international markets that year) to $59 billion in 1986 (61 per cent), then retreated somewhat.

Floating-Rate Notes

It was the growing volatility of interest rates and their steady rise in the late 1970s and early 1980s that explains the growth of the market for floating-rate notes – longer-term notes with a floating rate of interest that is reset

periodically in relation to some independent rate. FRN issues amounted to US$19.5 billion in 1983 and US$58.7 billion in 1985. At their height, FRN issues accounted for one third of all bond issues in international markets.

The market for "perpetual" FRNs – notes without a set redemption date – collapsed at the end of 1986 for lack of buyers and of financial intermediaries willing to deal out of their own portfolio to maintain a market. The aftershocks had a lasting impact on the market for "dated" FRNs – notes with a maturity of five to seven years – and as a result, FRN issues amounted only to US$21.9 billion in 1988 (one third of their 1985 level).

Euro-Equities

Another market-broadening instrument – although one that is less used than most others – is the **Euro-equity** (sometimes called "international" equity). The modern generation of international equities began in 1983, with a US$43-million issue by Bell Canada, managed by the Union Bank of Switzerland. Since then, well over 100 issues of Euro-equities have reached the market.

Risks

If a corporation issues paper of the underwritten type, the institution that agrees to market the issue takes an underwriting risk – i.e., the risk that it will not be able to sell the whole issue at the price guaranteed to the issuer. That risk is no different than the risk borne by any institution that underwrites in domestic markets the securities issued by corporations or governments, for example.

When the institution holds that paper as part of an underwriting commitment or of a backup line of credit that is being exercised, it faces **credit risk**, in that the issuer of the paper may not honour its commitments – a risk that is similar to the credit risk associated with lending.

Finally, the bank may face a **funding risk** – i.e., it may be required to provide backup financing at a time when it might have difficulty obtaining funds on the market itself. Indeed, funding risk is more likely to happen when corporations are experiencing difficulty in securing needed financing.

None of these risks are different from those usually borne by lenders, portfolio managers, or underwriters of more traditional instruments. In that sense, NIFs, ECPs, and FRNs have not given rise to new risks, as they are substitutes for existing means of financing, such as bonds or loans. What is different now is that the risks are no longer evident.

For example, some of the commitments made by banks under the issuing agreements for the new instruments do not appear directly on their balance sheets. As a result, there is a reduction in the transparency of the financial system. Because some of the new commitments are not part of the liabilities against which they are required to hold reserves, regulators face a more difficult task in attempting to ensure the system's overall stability. An agreement on new capital requirements, reached recently by 12 countries under the aegis of the Bank for International Settlements, addresses some of those problems – by requiring the inclusion of NIFs, for example.

For underwriters, the risks attached to Euro-equities do not differ from those associated with a domestic issue. For the issuing company, however, there is a risk that the equities sold abroad might flow back to the domestic market. That could put downward pressures on their price and could defeat one of the aims of the international issue, which is to broaden the investor's base.[6]

However, because the risks associated with the new instruments are not much different from those associated with bonds, loans, and domestic equities, they are outweighed by their market-broadening benefits. And indeed, the markets for the new instruments grew rapidly in response to demand from borrowers and investors. In 1986, these instruments accounted for almost 40 per cent of funds raised on international and foreign markets. With the exception of perpetual FRNs, there have not been any major disruptions in the markets for these instruments, nor have major losses been recorded.

Use by Canadians

While Canadian corporations are very active in international markets, they have not made extensive use of some of the market-broadening instruments described above. This may reflect a lack of knowledge about those instruments. On the other hand, it may also be that Canadian corporations consider that their financing requirements can be met adequately through the traditional instruments available to them. That they do not, in fact, use some of the newer instruments extensively is evident from the fact that in the mid-1980s, Canadian borrowers accounted for 4 per cent of all primary issues of short- and medium-term instruments on international markets but for only 2.6 per cent of Euro-commercial-paper issues. Similarly, with respect to long-

term borrowings, Canadians tended to favour the use of more traditional forms of Eurobonds, relative to other borrowers. For example, while they accounted for 7 per cent of all Eurobonds issued, their share of FRNs (a form of Eurobond) was only 4 per cent.

Several Canadian companies have issued Euro-equities. According to the Council's survey of nonfinancial companies, of those which issued shares between 1982 and 1987, 20 per cent did so on foreign markets in addition to domestic markets. Among the companies that issued Euro-equities, 78 per cent indicated that their primary reason for using foreign markets was the corporation's ability to attract investors and to publicize its issue abroad. Diversification of the shareholder base was cited as a factor by 71 per cent of the respondents; ease of placement, by 43 per cent; and the presence of a subsidiary in a foreign country, by 36 per cent.

Asset-Backed Securities

Another form of securitization involves the packaging of mortgage, personal, or commercial loans into pools of securities that are sold to investors. These asset-backed securities (along with swaps, discussed later on in this chapter) have the potential to revolutionize the Canadian financial system. They are not well known or understood, however. This is why we describe and analyse them in some detail in this chapter.

This type of securitization began in the United States in 1970, as the Government National Mortgage Association (GNMA) launched **mortgage pass-throughs** in an effort to create a secondary market for personal mortgages and to help the savings and loan associations – also known as **"thrifts"** – remain competitive in the mortgage field despite the interest-rate ceilings imposed by regulation on some deposits.

Mortgage Pass-Through Securities

Traditionally, the commercial banks and the thrifts – the main institutions involved in the financing of home purchases in the United States – held the mortgages that they originated until maturity. With a mortgage pass-through, residential mortgages are pooled into funds, and certificates of participation in those funds are sold to investors. Interest and redemption payments made on mortgages in the pool are divided among the investors on a monthly basis. They have been used extensively in the United States (see box).

Mortgage pass-throughs are important market-broadening instruments. First, they increase the overall liquidity of the mortgage market by creating a secondary market in participation certificates, thereby allowing investors to modify the weights of mortgages in their portfolio by buying or selling these certificates. Second, in the United States they have enabled the thrifts to diversify their mortgage portfolios on a national basis. The U.S. mortgage market is a regional market, where local thrifts and mortgage banks play an important role. By selling off their own mortgages and buying into mortgage pools, the thrifts could diversify their holdings of mortgages and, as a result, were willing to hold more mortgages. And finally, by unloading their mortgages, some institutions were, in fact, using their limited capital base more effectively. Because of their regional structure and their closeness to the homeowners, the thrifts and local banks were in a better position to originate mortgages; because of their relatively higher cost of funds, however, they were in a less favourable position to carry mortgages on their own books. In the wake of the financial difficulties experienced by the thrift industry, the cost of funds to these institutions soared, making it even more expensive to hold mortgages. With securitization, the thrifts could continue to provide mortgages, but these would be held by other investors, institutions, or individuals.

One consequence is that mortgage-backed securities also helped to improve the geographic efficiency of housing finance. Evidence supporting this conclusion comes from recent studies that point to a reduced variation in mortgage rates across regions.[7] By contributing to greater efficiency, the mortgage pass-throughs should theoretically result in more mortgage funds being made available and, in a competitive market, should lower costs to borrowers. And indeed, there has been more mortgage money available in the United States since the development of mortgage-backed securities, but borrowers have yet to see a decline in costs, perhaps because the gains have been retained by the thrifts, which have been facing difficult times.

Mortgage pass-throughs are also used as a tool of risk management. They shift the interest-rate risk from the lending institutions to the certificate holders. In particular, they enabled the thrifts to correct the mismatch between assets and liabilities that emerged in the late 1970s and early 1980s. Traditionally, in the United States, mortgages had been long-term instruments with a fixed rate of interest for the duration of the mortgage, but mortgage lenders often financed these loans with shorter-term funds, such as savings accounts. Because of the stable interest-rate environment of the 1960s and early 1970s, this policy did not give rise to financial difficulties for mortgage lenders. As interest rates surged in the late 1970s and early 1980s, however, the commercial banks – and the thrifts in particular – were faced with very high interest payments on their liabilities

Mortgage Pass-Throughs in the United States

Currently, three government or government-sponsored agencies are the major issuers of mortgage pass-throughs in the United States: the Government National Mortgage Association (GNMA), the Federal Home Loan Mortgage Corporation (FHLMC), and the Federal National Mortgage Association (FNMA). Together, these three issuers accounted for more than 98 per cent of the more than US$700 billion in mortgage pass-throughs issued between 1970 and 1986.

Table 3-1

Value of Mortgage Pass-Throughs, by Issuer, United States, 1970-86

	Cumulative, 1970-81	1982	1983	1984	1985	1986	Cumulative, 1970-86
				(Billions of U.S. dollars)			
Issued by:							
Government National Mortgage Association	127.0	16.0	50.5	27.9	45.9	98.2	365.5
Federal Home Loan Mortgage Corporation	21.9	24.2	19.5	18.7	38.9	98.0	221.2
Federal National Mortgage Association	0.7	14.0	13.3	13.6	23.7	60.5	125.8
Conventional	1.6	0.2	1.5	0.2	2.0	5.6	11.1
Total	151.2	54.4	84.8	60.4	110.5	262.3	723.6

SOURCE Salomon Brothers, Inc., *Major Developments in Housing and Mortgage Finance in 1985* (New York, January 1986), and *Housing and Mortgage Market Review* (February 1987).

The Government National Mortgage Association, backed by the full faith and credit of the U.S. government, guarantees the full and timely payment of interest and principal for a pool of mortgages that are either issued by the Federal Housing Administration (FHA) or guaranteed by the Veterans' Administration.

The Federal Home Loan Mortgage Corporation acts as an intermediary between the savings and loan associations from which it buys mortgages and the investors to whom it sells participation certificates. It also guarantees the timely payment of interest and the full collection of principal.

Initially, the Federal National Mortgage Association was an investor in the secondary mortgage markets. It started its own program of mortgage pass-throughs in late 1981 – a program very similar to that of the Federal Home Loan Mortgage Corporation.

while collecting low interest on mortgages originated years earlier. The pass-throughs of both the Federal Home Loan Mortgage Corporation and the Government National Mortgage Association were designed to assist the thrifts in correcting this interest-rate mismatch. However, the increased popularity of the adjustable-rate mortgage (ARM) – a long-term mortgage with a mechanism for periodic interest-rate resetting – reduced the risk-transferring role of mortgage pass-throughs by allowing institutions to shift part of the interest-rate risk to borrowers. Today, the thrifts are still facing huge problems, and many of them have failed or had to be rescued or to be sold with government assistance. Without the mortgage-backed securities, however, the thrift industry would probably have fared much worse.

From the point of view of investors, mortgage pass-throughs are high-quality investments that give them the opportunity to hold mortgages in liquid form. In addition to default risks, however, the investor also faces early repayment risk. When interest rates are declining – a time when early repayments are likely to occur – investors suffer a loss of interest because those early repayments, immediately

passed on to them, can only be reinvested at a rate lower than that of the original mortgage. This reduces the attractiveness of mortgage pass-throughs for many investors.

Collateralized Mortgage Obligations

To inject more certainty into the income flow from mortgage-backed securities, the **mortgage-backed bond** and the **collateralized mortgage obligation** (CMO) were introduced.

Mortgage-backed bonds were developed in the mid-1970s by savings and loans associations and securities firms as a means for the former to obtain funds without having to sell mortgages with below-market yields from their portfolios. These instruments disconnected the payment of interest and principal from the cash flow generated by the mortgages in the pool.

The collateralized mortgage obligation, a more important innovation, first emerged in June 1983 as an issue by the Federal Home Loan Mortgage Corporation. It falls somewhere between the mortgage pass-through – of which it is a spinoff – and the traditional bond (see box).

Only a small percentage of all CMOs have been collateralized by conventional mortgages; mortgage pass-throughs issued by the three federal agencies have been used for the remainder. Virtually all CMOs are overcollateralized – i.e., the value of the mortgages backing a bond issue is greater than the value of the bond. This qualifies the CMOs for a triple-A rating, based not so much on the creditworthiness of the issuer as on the quality and quantity of the underlying collateral, which makes the CMOs almost bankrupt-proof.

The CMO is viewed as a debt issue rather than as the sale of an asset, as in the case with the mortgage pass-through. CMOs raise funds that can be used for other purposes by the issuer. They do not, however, free capital for the originating institution. As their rating structure, maturity, and other characteristics grow similar to those of bonds, they become a viable investment alternative to corporate bonds.

CMOs have given a new impetus to the market for mortgage-backed securities. In 1987, 30 per cent of outstanding residential mortgages in the United States were securitized. Between 1982 and 1987, the rate of mortgage securitization – i.e., the number of new mortgage-backed securities as a proportion of all new securities – had fluctuated between 35 and 55 per cent. While the market originally developed through government initiative, its recent expansion was largely market-driven in response to changes in regulation, interest volatility, and the need for greater market liquidity.

Loan-Backed Securities

Another type of asset-backed security – the **loan-backed security**, consisting of pools of car loans, credit-card receivables, or business loans – has been developed in the 1980s.

The first securities backed by car loans were issued in March 1985. These instruments bear some similarity with mortgage pass-throughs and collateralized mortgage obligations. Although the market for loan-backed securities is still small compared with that for mortgage-backed securities, there is considerable potential for growth, given the volume of automobile loans in the United States.

Securities backed by credit-card receivables came to the market a year after those backed by car loans; the two types of securities are very similar. These securities have a rather short maturity, with a weighted average life of about 2.2 years. Their actual volume is small, but there is some potential for future growth, given the large volume of credit-card receivables outstanding.

The Collateralized Mortgage Obligation

Collateralized mortgage obligations are separated into four classes of bonds, collateralized by the same pool of mortgages but differing in their respective maturities. The cash flow generated from the mortgage pool is first used to pay the interest on the first three classes – A, B, and C – and then to repay the principal of A-class bonds until this class is completely retired. The same procedure is used to retrieve the B class and then the C class. In the meantime, the fourth class (Z) does not receive any payment even if interest is accrued. Whenever all previous classes have been redeemed, subsequent cash flows are then channelled to the Z-class investors, servicing first the accrued interest and then the principal. Investors who wish to invest in instruments that offer a certain stream of payments will purchase classes A, B, and C; investors willing to face some uncertainty in anticipation of a possible higher return will buy Z-class bonds.

Since 1985, small-business loans bearing the guarantee of the Small Business Administration (SBA) in the United States have been packaged into pools. The volume of these pooled loans grew from US$84 million in 1985 to US$637 million in 1987. At the end of 1987, half of all SBA-guaranteed small-business loans outstanding had found their way into a pool. A major difficulty in securitizing commercial loans, however, is their lack of homogeneity or standardization. Since the loans guaranteed by the Small Business Administration must meet a number of guidelines set out by that agency, they tend to be somewhat more homogeneous than other commercial loans.

Developments Outside the United States

It is only very recently that asset-backed securities appeared outside the United States. Some bonds backed by U.S. mortgages (Euro-CMOs) and car loans (GMAC's US$4-billion issue of Euro-CARS) were issued in the Euromarket in 1986 and 1987, but non-U.S. asset-backed Eurobonds remain few in number.

The first two sterling issues of floating-rate notes backed by mortgages appeared in the spring of 1987. Progress in that area has been slow, however, because of the lesser need for regional diversification in the United Kingdom, as British financial institutions (unlike those in the United States) are allowed to operate throughout the country, and because the U.K. government has not played a leading role in the development of these instruments. Despite their AA rating, mortgage-backed bonds have traded at higher yields than the floating-rate notes issued by the building societies – the major mortgage-lending institutions in the United Kingdom.

In France, legislation has just been introduced to allow the development of asset-backed securities during the current year. While the law covers any type of asset, it is expected that, initially at least, securitization will involve mortgage loans originated by banks.

Use by Canadians

Asset-backed securities had a relatively slow start in Canada, even though federal legislation allowing mortgage-backed securities was passed in 1973. There was not the same urgency in this country for mortgage-backed securities as in the United States. First, lenders and borrowers adapted to rising and more volatile interest rates by shortening the maturity of mortgages. Second, Canadian mortgages carried more favourable prepayment clauses. As a result, it was difficult to estimate the expected flow of payments into the mortgage pool – an important prerequisite for the constitution of any pool of securities. Third, there was less need for regional diversification in Canada, as the mortgage market was dominated by large banks and trust companies operating from coast to coast. Fourth, the mortgage market has always been competitive in Canada. Because interest-rate spreads are narrower than in the United States, there has not been enough room to cover the fees of managers of mortgage-backed securities. Finally, Canada's regulatory authorities have not made a clear ruling on the implications of securitization for the calculation of the capital requirements of major groups of financial institutions.

Nevertheless, asset-backed securities are now appearing in Canada because they contribute to an efficient use of resources through the quick turnover of funds and the specialization of institutions in areas where they have a comparative advantage – in the origination, packaging, or selling of loans, for example. By enabling an institution to originate loans that it does not have to carry on its books, asset-backed securities reduce the need – particularly for smaller institutions – to raise funds through wholesale deposits, which can be quite costly. They also make it possible for funds to be available throughout the country, while providing for the diversification of portfolios. While the development of asset-backed securities was accelerated in the United States by the financial difficulties suffered by the banks and the thrifts, the tougher capital requirements imposed by the regulatory authorities and the cost of raising funds will maintain the need for this form of securitization, even after financial institutions have regained their original credit ratings.

Although the Quebec government has been issuing debentures collateralized by NHA-insured loans for social housing since the early 1980s, the first mortgage-backed security of a more traditional type was launched in November 1985 by GMC Investors Corporation (a subsidiary of Counsel Trust), bearing a guarantee of timely payment from Citibank Canada. But the market for mortgage-backed securities remained lethargic until the Canada Mortgage and Housing Corporation (CMHC) embarked on a major program in January 1987. The first mortgage-backed security under this program was an issue by the Canadian Imperial Bank of Commerce, paying 9-1/4 per cent annually over five years, which offered potential buyers an interest in a $20-million pool of CIBC mortgages. About 453 million dollars' worth of privately originated mortgage-backed securities were issued in 1987 – about the same amount as the mortgage pass-throughs issued during the first year by the Government National Mortgage Association in the United States.[8]

In the fall of 1988, the amount of mortgage-backed securities issued in Canada since the beginning of the program passed the $1-billion mark. The main issuers are the smaller trust companies; 65 per cent of the certificate holders are small investors. The pool sizes vary between $5 million and $65 million. The CMHC is the guarantor of timely payment of both interest and principal, and all of the mortgages are NHA-insured. Thus investors benefit from a double guarantee.

In 1988, securitization was extended to public-housing mortgages. By December 1988, 215 million dollars' worth of securities had been issued in that market.

Loan Sales

The increased use of **loan sales** in recent years is further testimony to the fact that many banks find it costly to carry loans on their books and seek ways of specializing in the origination and servicing of loans. In 1982, the total value of loan sales in the United States was US$27 billion – about 1.2 per cent of the total assets of commercial banks. By 1987, that figure had reached US$115 billion (about 4 per cent of total assets).[9]

Some Canadian banks have also resorted to selling the loans of companies with a high credit rating. In some cases, large loans are divided into smaller lots and apportioned to other institutions, especially foreign-owned Schedule B banks whose direct contacts with Canadian companies are somewhat limited.

Benefits

Asset-backed securities enable financial institutions to specialize, thus leading – in theory, at least – to greater efficiency in the provision of services through more accurate pricing and, ultimately, to increased profitability, as each institution operates only in the segments of the markets where it has a comparative advantage. They can also become an important investment tool in regional development, as they facilitate the financing of local activity without impinging on the law of prudent diversification.

For the users of financial services, securitization increases the liquidity of markets, particularly in areas where secondary markets have not been well developed – namely, mortgage, personal, and business loans. There are indications that the development of mortgage-backed securities in the United States had a positive impact on the availability of mortgage funds. Interest-rate spreads have decreased since 1980 – much more significantly in the United States than in Canada. While that is partly the result of greater participation in the internationalization process in the United States, it may also be attributable, in part, to the greater strides achieved by securitization in that country. In Canada, the development of mortgage-backed securities is lowering the cost of funds for public housing. By bringing in new investors and offering a mechanism through which institutions can diversify their assets across sectors and across regions, securitization may also increase the availability of funds to outlying regions or to sectors that have not been favoured by investors. And it provides a more liquid market for investors, as well as a potentially higher overall rate of return.

Risks

To a large extent, the introduction of asset-backed securities lowers risks for participants in financial markets. First, asset-backed securities are an indirect way of providing a secondary market for mortgage, car, or business loans. This increases the liquidity of the loans, reduces the degree of their price fluctuations, and makes them less risky. Second, by freeing the institution that originated the loan from the need to hold it on its balance sheet and by thus allowing the institution to avoid a possible mismatch between its assets and its liabilities, asset-backed securities strengthen the stability of the overall financial system. This, of course, assumes that they are held by individuals or institutions that are better able to carry them than the originating institutions.

On the other hand, the development of asset-backed securities may have increased credit risk. That danger could arise if the monitoring done on behalf of the pool were of a lesser quality than that which is traditionally done by institutions when they carry the loans in their portfolios. While that possibility does exist, there is no empirical evidence to show that it has materialized. The reputation of the monitoring institution – which is often the institution that originated the loans – is at stake, and should the institution be negligent or unethical in its operations, it would undoubtedly be barred from future participation in the securitization of loans. That threat is a strong incentive to toe the line.

If the asset-backed securities are held by a large number of investors, that will result in a welcome spread of the risks. If, however, the units are held by only a few individuals or institutions, there may be a greater concentration of risks, and the overall risk would be greater because of the risk of default. This is a concern for the regulators, who may have more difficulty in appraising the overall situation, because the identity of the owners of the units in the pool is

not known and the securitization process may thus have been accompanied by a decrease in the transparency of the financial system. In all likelihood, however, the lowered price risk more than compensates for any increase in credit risk. So far, there has not been a major default in this form of securitization. If some individual loans fare badly, the overcollateralization or the guarantee provided by government or private institutions will limit the costs. On balance, therefore, asset-backed securities have a positive impact on financial markets and the economy.

Risk-Management Instruments

Some instruments were specifically developed to provide corporate treasurers, portfolio managers, and financial intermediaries with tools to manage risks. Included among them are forward, futures, and option contracts (see box).

Market Developments

The Early Period

The development of futures and options markets can be traced back to the middle of the 19th century in the United States – a period when the markets for agricultural products (grains, in particular) were plagued by great volatility. Between August and mid-December, the price of grain would collapse, as the new harvest would flood the market; the following spring, the price would soar, as there was not enough grain to meet the demand. To escape these wild fluctuations in prices, merchants began selling grain on a "to arrive" basis. But three ingredients of an efficient market were lacking: standardized contract terms, good-faith guarantees, and a **clearing mechanism**. Recognition of those shortcomings led to the establishment of organized exchanges that would provide those ingredients. Trading in grain futures began on the Board of Trade of the City of Chicago (now known as the Chicago Board of Trade) in the mid-1800s; trading in cotton futures started on the New York Cotton Exchange around 1870. Until the 1950s, futures contracts only covered storable goods, but futures on livestock were introduced around that time.

Currency futures first appeared in 1972, as the Chicago Mercantile Exchange formed an associated market – the International Monetary Market – that listed the first actively traded futures in foreign currency merely a year after the Bretton Woods system was abandoned. Currency options first emerged in the Netherlands in 1978, then spread to the United States and to other countries in 1982.

The first interest-rate future to be traded was related to mortgages and was offered on the Chicago Board of Trade in October 1975, although its development had been in process for a few years.[10] The second such contract, specifying delivery of a U.S. Treasury bill, was listed on the International Monetary Market in early 1976. The Eurodollar contract – a futures contract on a Eurodollar interest rate – was introduced at the end of 1981. It was the first futures contract on an international instrument and today has become one of the most popular types of interest-rate futures contract.

That Eurodollar contract was also the first contract to call for cash settlement rather than for the delivery of the underlying security. The introduction and acceptance of cash settlement was an important step in the development of futures markets: not only does cash settlement dramatically lower transaction costs, it also opens the door for contracts for which the physical delivery of the underlying asset is virtually impossible. Stock-index futures are an example of this: without cash settlements, this type of contract would probably not have been developed, for it is almost impossible to deliver a basket of stocks that replicates an index. Soon after the introduction of the Eurodollar contract, stock-index contracts were introduced simultaneously on three exchanges. With the growing volatility of exchange and interest rates and of stock market prices, trading in financial and currency contracts in the United States has registered a phenomenal growth.

Recent Growth

The number of all futures contracts traded on U.S. exchanges rose from 7.8 million in 1979 to 139 million in 1988 (Chart 3-1); the advance of two components – interest-rate and foreign-currency futures – was equally stunning. While options were introduced at a later date, they also grew rapidly (Chart 3-2); the retrenchment in 1988 was a consequence of the October 1987 market crash.

Financial futures (including currency futures) have now overtaken agricultural and metal futures. In 1979, trading in agricultural futures accounted for about 62 per cent of the total, while financial futures represented only 10.3 per cent and ranked third in importance, behind precious-metal futures. In 1988, trading in financial futures accounted for 57 per cent of the total, with trading in interest-rate futures having taken the lion's share (Charts 3-3 and 3-4).

As a result of this rapid growth, trading in futures is increasing relative to trading in the underlying securities – i.e., U.S. Treasury bonds and bills, foreign-exchange

Three Types of Contracts

A *forward contract* is an agreement between two parties to exchange a specified amount and type of commodity or financial instrument at a future date and at a predetermined price. Forward foreign-exchange contracts are binding contracts to purchase or sell a foreign currency at an exchange rate determined on the day the contract is made, with delivery to be made at a specified date in the future. The agreed-upon exchange rate is based on the differential between the interest rates prevailing in the two currencies that are being exchanged and the contract's term to maturity; it includes the fee of the financial institution, as there is no up-front payment of a premium. It is an over-the-counter (OTC) transaction between a financial institution – usually a bank or a securities firm – and its customer. The amount and the maturity date of the contract are tailored to the specific needs of the customer. Simple forward contracts do not enable customers to benefit from favourable price movements or to unwind a contract before maturity.

Forward contracts may also involve the delivery of a bond or a bill at a predetermined price and thus offer protection from the risk associated with movements in interest rates. A popular variant is the forward rate agreement (FRA), whereby the two parties – usually a bank and its customer – set an interest rate for a predetermined date in the future on a notional (hypothetical) amount of capital. Should the actual rate be higher on the maturity date, the bank will pay the customer the difference multiplied by the notional amount; should the rate be lower, the customer pays the bank. Forwards and forward rate agreements are rigid types of contracts, because delivery is required at the prespecified date and there is no mechanism to unwind or reverse the contract before maturity.

Forward foreign-exchange contracts are binding agreements to purchase or sell a foreign currency at a set exchange rate with delivery at a specified date in the future. They offer the risk-averse investor or borrower protection against adverse movements in exchange rates. A borrower or investor can set in advance the interest rate he will pay or receive in the future by entering into a forward rate agreement (FRA), usually with a bank. Both forward contracts and FRAs are tailor-made instruments for which there are no secondary markets.

A *futures contract* confers the right and the obligation to buy a specific commodity at a fixed date and at a predetermined price. Futures are standardized instruments. They mature on standardized delivery dates; they are denominated in standardized amounts. The price of the futures contract is derived from the price of the underlying commodity, to which a carrying cost is tagged on. Although some contracts are traded over the counter, the most successful ones are found on organized exchanges.

Currency futures are contracts to deliver a foreign currency (such as the Japanese yen or the British pound). Stock-index futures are contracts based on the delivery of a basket of stocks (such as the Standard and Poor's Composite 500 and the New York Stock Exchange Composite). Interest-rate financial futures are based on a long-term bond, a short-term bill, a certificate of deposit, or a mortgage pass-through.

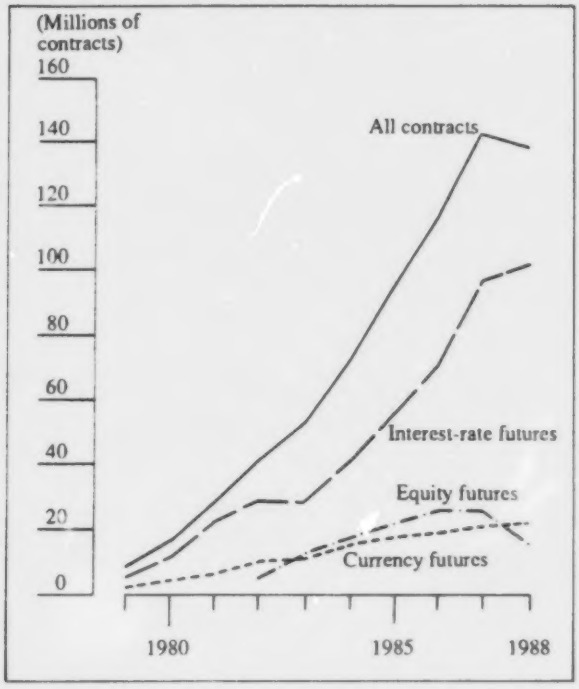
Many of these contracts are based on cash settlement and not on the physical delivery of the underlying asset. Often, the underlying asset does not have a physical or legal existence – stock indexes, for example. Moreover, holders of contracts seldom hold their commitments until the expiration date; often they sell them – they "unwind" their commitment – by entering into an opposite contract. Parties to the contract only put down a small "good-faith margin" – since, technically, the contract needs only to be settled on its expiration date – and every business day, there is payment of the "variation margin," whereby the seller (or "writer") of the contract compensates the buyer by the amount it has appreciated – or vice versa, if the price of the contract has declined.

Interest-rate and currency futures and options are standardized instruments that are often traded on organized exchanges. With these instruments, borrowers and investors can protect themselves against unfavourable movements in exchange and interest rates but can share in the gains resulting from favourable movements.

An *option* is a contract that gives the holder the right, but not the obligation, to buy or sell an underlying commodity or asset. A "call option" is a contract that gives the holder (the buyer of the option) the right, but not the obligation, to buy an asset at a specified price (the exercise, or "strike" price) on or before the expiration date (American option) or only on the expiration date (European option). A "put option" is a contract that gives the holder the right, but not the obligation, to sell an asset at a specified price. The buyer of the option pays the seller of the option a premium for the purchase of the right. If, before the expiration date, the actual price of the asset increases to a level higher than the price specified in the option, the call holder may exercise his right to buy the asset at the specified price, which is now below the market price. If the market price does not increase beyond the exercise price, then the call holder will not exercise his option and his loss will be limited to the premium paid. A call (or put) option gives its holder a maximum (or minimum) guaranteed price, at which he can purchase (or sell) an asset and thus is a protection against a rise (or fall) in prices. Options are either traded on exchanges or over the counter. Option contracts cover specific stocks, stock index futures, currencies, and interest-rate futures. Interest-rate options fix an interest rate on a notional amount. In other words, the seller of an interest-rate call option will commit himself to lend hypothetically to the buyer a specified notional amount of money at a specified interest rate before the expiration date of the option and at the request of the option holder.

Chart 3-1

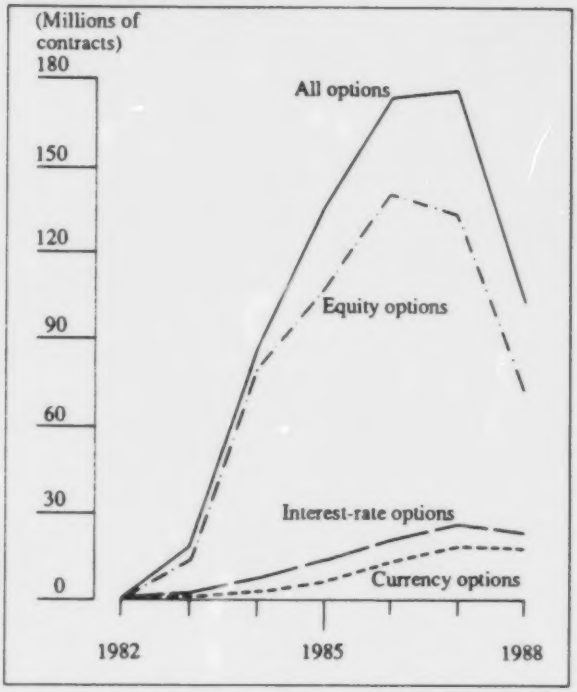
Volume of Financial Futures Contracts Traded on U.S. Exchanges, 1979-88



SOURCE Data from Futures Industry Association, *Volume of Futures Trading*, various years.

Chart 3-2

Volume of Financial Option Contracts Traded on U.S. Exchanges, 1982-88



SOURCE FIA, *Volume of Futures Trading*; and Chicago Board Options Exchange, *Annual Market Statistics* (1987).

contracts, and the stocks that are included in the calculation of Standard and Poor's 500 index or the New York Stock Exchange index. This has important consequences, not only for the reallocation of risks but also for the liquidity of the markets for the underlying assets.

Another measure, albeit imperfect, of the growing importance of futures and option contracts is the threefold increase, in less than two years, of the commitments of U.S. commercial banks on futures and forward contracts, as well as the fourfold increase in their commitments with respect to option contracts (Table 3-2).

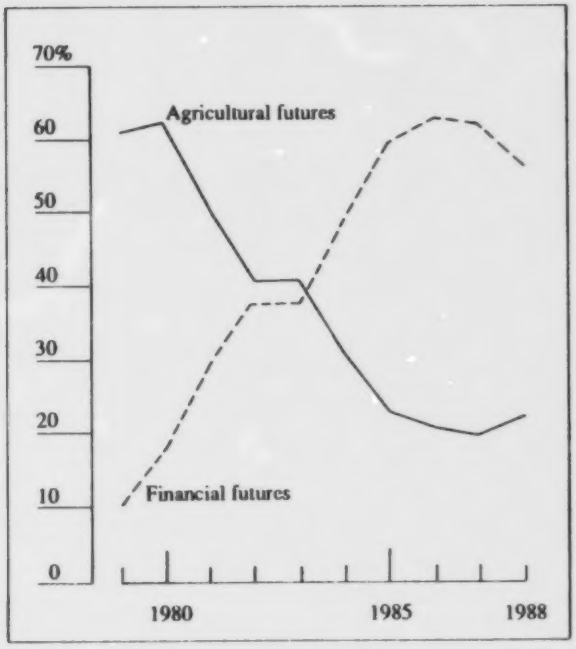
Trading Centres

The United States remains the major centre for trading in futures and options, and Chicago is the hub of activity within that field, with the Chicago Board of Trade, the Chicago Mercantile Exchange, and the Chicago Board Options Exchange. While the CBOE is the largest option exchange (particularly for equities), Philadelphia has a very active currency-option market.

One of the essential cogwheels in the operation of the Chicago exchanges is the presence of the "locals" – individuals who trade for their own account, generally in small amounts, and act as the counterparty for orders from institutions, corporations, and individuals. The "locals" are a source of much-needed liquidity for many futures markets, and they are a permanent fixture in the trading pits in Chicago. In Standard and Poor's 500 pit, for example, only 5 per cent of the total activity comes from individual speculators; 55 per cent is accounted for by the "locals," and the rest is from institutions and dealers. There are between 1,200 to 1,400 locals on the Chicago Mercantile Exchange, and about 2,000 locals on the Chicago Board of Trade. As institutions often will not trade a new contract until the market is fairly liquid, the successful start of a market rests on the shoulders of the "locals." While computerized trading may replace "locals" one day, it will not eliminate the need for a large number of participants.

Chart 3-3

Relative Importance of Agricultural and Financial Futures Contracts[1] among FIA Members, 1979-88



1 As a proportion of all futures contracts traded.
SOURCE FIA, *Volume of Futures Trading*.

Elsewhere, London and Paris are gaining prominence in these markets (Table 3-3). Toronto, Montreal, Amsterdam, and Sydney have less-active futures and option markets, as have New York and Kansas City. Futures markets are just being developed in Tokyo and Osaka.

Canadian Markets

In Canada, the over-the-counter forward markets for interest rates and foreign exchange are quite active and are well run by the chartered banks. The market for forward rate agreements in U.S. and Canadian dollars – which acts as a substitute for a futures market in this country – is also active, with an estimated US$100 billion in contracts outstanding.

According to the Council's survey of corporations on the use of innovative instruments, about 60 per cent of the respondents had, at one time or another, entered into a forward contract, but the proportions of those who had never used the other instruments were high: 95 per cent, in the case of interest-rate futures or options; 85 per cent, in the case of currency options; 81 per cent, in the case of currency futures; and 81 per cent, in the case of forward rate agreements. Forward contracts are the preferred instruments, because they can be tailored to the specific needs of the corporation. Undoubtedly, the certainty, ease of understanding, and availability of forward contracts contribute to their popularity. These instruments are also considered cheaper, relative to futures and option contracts. At the same time, many respondents viewed options and futures as being too speculative, too costly, or not suited to their needs. A number of respondents also cited a lack of in-house expertise with respect to options and futures.[11]

Among the organizations that have used innovative financial instruments are a few crown corporations – in particular, the Export Development Corporation, the Farm Credit Corporation, and the Federal Business Development Bank – and several large private-sector companies. There is an unwritten agreement whereby the federal government is to seek financing in domestic markets while its crown corporations will fill their funding requirements in international markets; this has prompted the crown corporations to look for instruments that will lower their borrowing costs and assist them in managing their risk exposure. Several of them are required to lend at below-market rates and to disburse funds over a long period of time – up to five years – at fixed interest rates. As a result, they have developed sophisticated financing strategies that involve various swaps or options.[12]

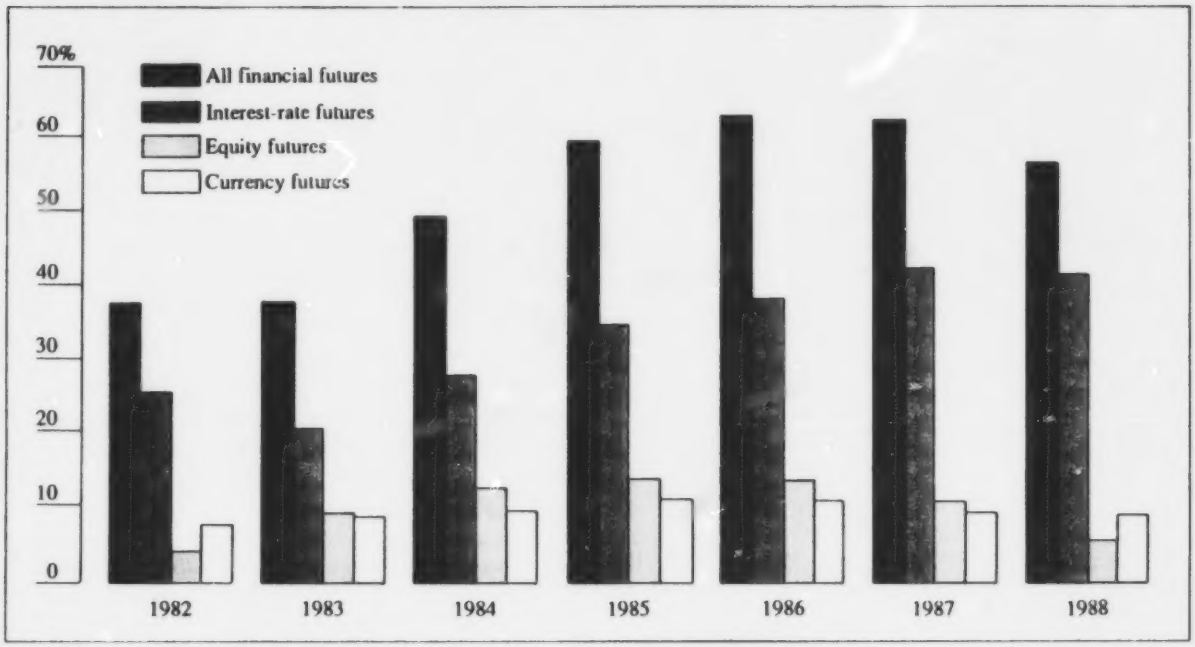
There also appears to be some difficulty in developing the exchange-traded contracts. The Toronto Futures Exchange was created in 1984 to broaden the market for futures and options. While stock-index contracts have been successful, that is not true of interest-rate futures, whose development has been hampered by a lack of liquidity. In addition, the existing legislation prevents pension funds, insurance companies, and mutual funds from participating in such markets.[13] The absence of these major potential users severely restricts the size of the markets. Another obstacle, in the Toronto Futures Exchange, is the dearth of "locals," who account for only 25 per cent of the volume of trading.

The traditional competition between the Montreal and Toronto Stock Exchanges does not seem to be as sharp with respect to the futures and option markets. Both seem to be specializing – Toronto, in futures, particularly stock futures; and Montreal, in financial and currency options.

The Montreal Exchange was the first to offer a bond option in 1984. The average daily turnover is about 1,500

Chart 3-4

Relative Importance of Financial Futures Contracts[1] among FIA Members, 1982-88



1 As a proportion of all futures contracts traded.
SOURCE FIA, *Volume of Futures Trading*.

Table 3-2

Futures-, Forward-, and Option-Contract Commitments of U.S. Banks, 1985-87[1]

	Futures and forward contracts		Option contracts	
	Commitment to purchase	Commitment to sell	Purchases	Sales
	(Billions of U.S. dollars)			
December 1985	57	40	11	5
March 1986	64	60	13	9
June 1986	66	56	14	11
September 1986	102	80	22	10
December 1986	100	80	28	12
March 1987	121	109	40	13
June 1987	129	125	35	19
September 1987	129	133	45	21

1 At the end of the months shown.
SOURCE Federal Reserve System, *Call Report* (1988).

contracts. On the currency side, however, Montreal has been less successful. Options for the British pound, the Deutschemark, the Swiss franc, and the Canadian dollar had been listed on the MSE, but only the latter is still listed today. In August 1986, the Montreal Exchange launched a Treasury-bill option contract that has been quite successful. In May 1988, the Montreal Exchange offered a bankers'-acceptance futures contract – a short-term instrument with a

Table 3-3

Financial Futures and Option Contracts Booked Outside the United States, 1987 and 1988

	November 1987	November 1988
	(Thousands of contracts)	
Market of booking:		
London (LIFFE)	1,297	1,440
Futures	1,182	1,289
Options	115	151
Paris (MATIF)	1,312	1,357
Futures	1,312	1,088
Options	–	269
Tokyo Stock Exchange	1,062	2,537
Futures	1,062	2,537
Sydney Futures Exchange	456	788
Futures	396	681
Options	60	106
Singapore (SIMEX)	176	401
Futures	170	397
Options	5	3
Hong Kong Futures Exchange	47	10
Futures	47	10
Toronto Futures Exchange	39	72
Futures	5	3
Options	34	69
New Zealand Futures Exchange	12	41
Futures	12	41
Montreal Exchange	30	28
Futures	–	1
Options	30	27
European Options Exchange	187	199
Options	187	199
Stockholm Options Exchange	1,123	457
Options	1,123	457
Sao Paulo Commodities Exchange	–	13
Futures	–	13
Osaka Securities Exchange	49	442
Futures	49	442

SOURCE Futures Industry Association, *International Report*, November 1988.

broad and liquid cash market, designed to provide corporations and financial institutions with hedging facilities. Despite the apparent need for such facilities, there have been few participants so far, and the market lacks liquidity.

Stock options are also traded on the Vancouver Stock Exchange, but the volume lags behind the figures noted for Montreal and Toronto (Table 3-4).

The absence in Canada of a liquid market for options and futures – in particular, interest-rate futures – impedes the efficient management of risks by financial institutions and nonfinancial market participants. It is difficult to hedge against movements of Canadian interest rates on U.S. markets, where instruments exist only for interest rates denominated in U.S. dollars. Thus assumptions must be made about the relative movements of U.S. and Canadian interest rates.

Death and Survival

The difficulties encountered by the Montreal and Toronto Stock Exchanges are not unusual. Over time, many contracts have been launched, only to disappear shortly thereafter. And for many of the survivors, the volume of trading is very light in comparison with that of the most actively traded contracts (Table 3-5). According to a 1984 study of futures market, "the majority of futures contracts failed within ten years of their introduction."[14]

But other contracts do succeed. What are the ingredients of that success? Although exchange managers have sometimes been accused of using the "spaghetti-on-the-wall" technique – "define a new contract, throw it into the open pit, and see if it will stick" – the process is somewhat less casual than that tongue-in-cheek description might suggest, and a number of conditions must be met for a contract to be successful.

First, there must be enough volatility in the market to prompt some economic agents to seek protection and others to take advantage of it. Second, there must be a very active underlying cash (or spot) market. Futures, option, and even forward agreements are often called "derivative products," because they are based on the spot market for a currency, a short- or long-term bond, or a basket of stocks. Successful contracts are based on broad markets, such as the markets for U.S. Treasury bills and bonds, the Eurodollar market, and various stock markets. Third, the contract must be well designed; in particular, it must allow for easy delivery or cash settlement. Fourth, there must be enough participants in the market on both sides of the transaction. In other words, there must be hedgers and speculators simultaneously. The success of the Chicago exchanges is based on the large number of "locals"; while some of them have little capital, many are supported by the large clearing houses that guarantee the execution and settlement of the

Table 3-4

Trading in Financial Options on Canadian Exchanges, 1980-88

	Gold	Silver	Stocks	Bonds	Canadian dollars	Treasury bills	Others	Total
				(Thousands of contracts traded)				
Toronto Stock Exchange:[1]								
1980	...	...	1,881.6	...	...	...	...	1,881.6
1981	...	...	2,803.7	...	...	...	...	2,803.7
1982	...	...	2,536.8	...	...	...	...	2,536.8
1983	...	36.5	2,590.4	–	...	...	...	2,626.9
1984	...	134.3	2,289.4	–	...	...	...	2,423.7
1985	...	75.9	2,456.4	6.3	...	...	...	2,538.6
1986	...	21.1	2,592.6	43.5	...	...	...	2,657.2
1987	...	35.2	3,554.1	25.4	...	...	...	3,614.7
1988	...	34.6	2,767.7	–	...	...	...	2,802.3
Montreal Exchange:								
1980	–	...	416.7	–	–	...	–	416.7
1981	–	...	414.1	–	–	...	–	414.1
1982	–	...	375.9	2.2	1.8	...	–	379.9
1983	86.0	...	649.0	62.0	13.0	...	28.3	838.3
1984	54.5	...	708.7	147.6	17.1	...	79.5	1,007.4
1985	47.4	...	836.4	240.8	20.3	...	24.9	1,169.8
1986	74.7	...	1,049.8	288.2	2.4	3.2	0.1	1,418.4
1987	72.8	...	1,325.5	416.0	0.5	5.6	1.2	1,821.6
1988	39.1	...	808.6	334.7	0.1	0.5	0.2	1,183.2
Vancouver Stock Exchange:								
1982	1.9	...	–	...	...	...	–	1.9
1983	5.5	17.1	–	...	0.2	...	–	22.8
1984	5.0	22.6	96.4	...	0.7	...	–	124.7
1985	7.1	10.4	171.0	...	0.5	...	–	189.0
1986	7.6	2.1	206.6	...	0.2	...	–	216.5
1987	6.3	2.6	343.5	...	––	...	0.1	352.5
1988	4.0	1.7	283.2	...	––	...	––	288.9

1 Bond and silver options are traded on the Toronto Futures Exchange; stock options include trading in the TSE35 index options.
SOURCE Data supplied by the Exchanges.

transactions. A fifth condition for success is the absence of close substitutes for the contract. For example, it would be difficult today to reintroduce into the United States a certificate-of-deposit contract, because the Eurodollar contract is very liquid and a good substitute.

Instruments to Manage Risks

The forward, futures, and option markets offer institutions, corporations, and individuals instruments to manage risks. Some assume risks in an attempt to profit from them; others seek protection from risk. In the foreign-currency market, for example, the speculator places his bets on the movement of a particular currency and will attempt to profit from that variation. His actions will be the counterpart of the hedging of the importer, in either the forward, futures, or option markets.

The process of hedging can be illustrated by the following example. If a Canadian importer who is not in the financial business needs to make a payment in U.S.

Table 3-5

Volume of Trading in Various Futures Contracts on F.I.A. Exchanges, 1977-88

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
	(Thousands of contracts)											
Treasury bonds	32	555	2,067	6,637	14,181	17,163	19,818	30,215	40,745	53,066	67,857	71,722
Treasury bills	322	775	1,974	3,448	5,642	6,699	3,828	3,323	2,450	1,850	1,952	1,396
Eurodollars (three months)	–	–	–	–	15	324	891	4,193	8,901	10,825	20,416	21,705
European currency unit	–	–	–	–	–	–	–	–	–	116	42	24
British pound	79	241	514	1,271	1,491	1,322	1,616	1,453	2,820	2,719	2,603	2,644
Canadian dollar	161	208	404	603	476	1,078	559	349	472	740	922	1,418
Deutschemark	134	402	451	923	1,655	1,793	2,430	5,576	6,535	6,657	6,122	5,712
Japanese yen	82	362	330	575	961	1,762	3,453	2,369	2,448	4,017	5,417	6,477
Mexican peso	17	18	30	19	19	65	40	15	13	–	–	–
Swiss franc	107	322	494	832	1,519	2,653	3,786	4,229	4,868	5,100	5,366	5,361
Dutch guilder	3	4	– –	– –	– –	– –	– –	–	–	–	–	–
French franc	3	4	– –	– –	2	16	26	8	9	3	10	4
Standard and Poor's 500 index	–	–	–	–	–	2,936	8,102	12,364	15,056	19,505	19,045	11,354
New York Stock Exchange composite index	–	–	–	–	–	1,433	3,506	3,457	2,834	3,124	2,916	1,669
Treasury notes (all)	–	–	23	18	33	881	815	1,662	2,860	4,426	5,637	6,501

SOURCE Data from the Futures Industry Association.

currency three months hence and if there is uncertainty about the future level of the dollar, he may wish to "lock in" an exchange rate – i.e., to hedge. The simplest way of hedging is through the cash market. The importer could purchase today the needed amount of U.S. dollars and hold them for the next three months. Alternatively, he could invest in assets denominated in U.S. dollars. The importer could avoid the trouble of going to the U.S. capital market by entering into a forward contract with a bank for the delivery of U.S. currency three months later, at a predetermined rate.

The option market is designed for the importer who is willing to take some risk. Should the exchange rate move in a favourable direction, the importer who has hedged his risk on the forward market will face an opportunity cost in terms of forgone profits. If he purchases a call option, he will pay a premium that will insure him against an unfavourable move but will enable him to take advantage of a favourable movement.

The futures market is designed for those who would like to share in potential gains in greater measure. This market allows quick entry and exit at minimal cost. The hedger can unwind his position at any time by selling a contract or buying an opposite contract. He must, however, monitor his position daily. In addition, as he can only buy contracts for standardized amounts that expire on definite dates, the futures market may not offer him the exact amount or maturity date that he needs.

Option and futures contracts offer opportunities for stock market participants to modify the risk of their cash market position. For example, if the holder of a number of shares purchases a put option, he will gain, in exchange for the premium he pays to the writer of the put, protection against any decline in the prices of those stocks while retaining the possibility to profit from any price increase. Should prices increase in fact, his profit will be reduced by the premium. As for the writer of the put, he receives an income in the form of the premium, but he may suffer a loss should a decline greater than the premium occur in the price of the shares.

Similarly, the manager of a stock portfolio who expects a decline in the stock market may sell a futures contract on a stock market index, thereby changing the relative weight of stocks, bonds, and cash in his portfolio. The holder of Treasury bonds who faces the risk that interest rates may rise and the price of bonds may decline can also hedge his position by selling a futures contract – i.e., by acquiring the right to sell a bond at a predetermined price. If interest rates do rise, the value of his futures position – the right to sell bonds at a price above that currently prevailing in the market – will increase, and the gain will offset the loss in the market value of the bond in his portfolio.

Another example of hedging behaviour is that of the real estate developer who builds an apartment complex for which mortgage financing will be available when construction is completed. The developer can protect himself against an unforeseen rise in interest rates by entering into a forward rate agreement with a bank that fixes interest rates – say, a year in advance. If the actual interest rate a year later is higher than the predetermined rate, the bank will pay the difference to the developer, and that gain will compensate him for the higher mortgage rate. Should the actual interest rate be lower, the mortgage rate will also be lower, but the developer will have to pay the shortfall to the bank. Alternately, the developer could go to the futures market and sell a futures contract. Should interest rates rise, the price of the contract will rise, and that will compensate him for the higher mortgage rate.

The Choice of Market

The various financial markets meet a variety of needs. The forward market, where customized contracts are traded, is the market preferred by corporations that wish to protect themselves against any volatility in interest rates and currencies.

Forward contracts are usually associated with commercial transactions. The counterparty in the transaction is generally a bank or a securities firm. The bank may be involved in a large number of deals and may find itself with a sizable open – i.e., unhedged or unprotected – position with respect to interest rates and currencies. It may then turn to the futures market to hedge its own position. It can do so because the futures market offers a standardized guaranteed product at a very low transaction cost. Futures contracts, on the other hand, are instruments of portfolio management. In the process of dealing in forward contracts, the bank has intermediated between a standardized and a custom-made product. That is an important role being performed by financial institutions. Other banks, dealers, or "locals" will assume the counterparty position in transactions on the futures market.

In managing a portfolio, the choice between the futures, option, or cash markets depends on the relative transaction costs, that term being defined here in its broader sense to include the costs associated with a lack of liquidity. The cost of changing a portfolio through transactions in the futures market is about one tenth of the cost of doing so

through the direct buying or selling of stocks. Not only are brokerage commissions usually lower in futures markets, but with cash settlements, stock indices can be traded efficiently, whereas it would cost more to trade the underlying basket of stocks in the spot market. In addition, there are no upfront fees in futures markets, and only a small margin is required; on the other hand, daily cash settlements may put a strain on cash flow. There is no margin on options, but the premium is often relatively high, and brokerage fees are much higher than for transactions in the cash market.

Markets for derivative products enable individuals, corporations, and institutions to modify their exposure so that it will be more in line with their view of the risks they should take. They transfer risk exposure from those less willing or less able to bear risks to those who are more able or more willing to do so; theoretically, at least, they can thus promote a more efficient distribution of risk-bearing in society.

The speculator performs an important function in those markets. Without speculators, only limited hedging is possible. For a transaction to take place between two hedgers, they must have exactly complementary needs. For example, an exporter who expects a payment in a foreign currency three months hence must, in order to hedge, find an importer who must make a payment in the same currency at the same future date. Otherwise, both must find an agent willing to take the risk for a remuneration – i.e., a speculator. By taking the counterpart to hedgers, speculators generally contribute to the reallocation of risks and to improved risk management in the economy. But speculators do not only respond to hedgers, they also sometimes initiate transactions; in such instances, speculation may be destabilizing.

Well-developed markets for derivative products could also enhance the liquidity of the underlying cash market. Because investors can modify the configuration of their portfolio by selling futures contracts, the stock and stock-index futures markets are now so integrated that they form virtually one single market; trading in stock-index futures is often viewed as a substitute for trading in stocks. Thus forward, futures, and option contracts, which are basically risk-transferring instruments, also have a market-broadening function.

Costs

Concern is raised by futures, option, and forward rate agreements in four areas: 1) a misallocation of price and credit risk could increase the overall riskiness of the financial system; 2) futures and options could cause price volatility to rise; 3) futures and options could make it more difficult for medium-sized firms to obtain financing through public issues on stock markets; and 4) futures and options can render the implementation of monetary policy more difficult.

Misallocation of Risks

In theory, futures and options transfer position risk from risk-averse parties to those better able to assume it. If that is indeed the outcome, then the capacity of the overall system to bear risk has increased, and its fragility has decreased. But if the new instruments do not succeed in transferring risks or if they lead to a greater concentration of risk, then the fragility of the financial system and of the overall economy increases.

Currently, no information exists on the ultimate bearers of risks. As a result, it is difficult to assess the impact of the introduction of futures, option, and forward rate agreements on the overall riskiness of the financial system. That very lack of transparency is worrisome and may, in itself, be viewed as an increase in the overall risk.

Moreover, many financial institutions do not have adequate internal control mechanisms to monitor the positions taken by their traders. From a regulatory point of view, the taking of positions by financial institutions in the futures, option, and forward markets is a source of concern because these transactions do not appear on their balance sheets, making it difficult for regulators and investors to assess their exposure. Even if information on commitments were available, the assessment of the position risk of the institution would depend on whether those commitments are used to hedge or to speculate. Thus an assessment of the risk exposure of an institution active in the markets for derivative products would depend on its overall net commitments and on the extent to which those commitments offset the exposure created by the holding of other assets and liabilities.

Finally, there is also some credit risk involved in futures and option transactions, but again, because of the lack of information, the extent of such risks is difficult to assess.

Impact on Price Volatility

There is a widespread belief that futures and options have increased price volatility in the stock and debt markets. This concern was particularly evident in 1987, following the difficulties encountered by the bond market in the spring and by the stock market in October.

But those concerns are not new. Indeed, trading in options and commodity futures was banned in the United States in 1936, precisely because it was feared that they would create instability.[15] Similarly, trading in onion futures was banned in 1958, because many people believed that it would destabilize the cash market for onions. In October 1978, the Treasury and the Federal Reserve asked the Commodity Futures Trading Commission (CFTC) to refrain from authorizing additional contracts in Treasury futures; the two bodies wanted time to study the effects that additional growth in those contracts might have on the cash market. The study concluded that there was no evidence that futures trading in financial instruments would disrupt the cash market and increase price volatility.[16] This has been supported by other studies.[17]

Impact in the Context of Monetary Policy

Another concern is that the development of derivative products – specifically, of hedging instruments – makes the economy less sensitive to movements in interest rates, reduces the effectiveness of monetary policy, and shifts the timing of its impact on the economy. While it could be argued that investment decisions might become less sensitive to changes in the cost of funds, the returns expected on an investment project must nevertheless be evaluated against alternative yields, and movements of interest rates still play a role here.

Equity Financing by Medium-Sized Firms

A fourth source of concern is that with the development of futures and option markets, portfolio managers will be even more prone to hold stocks of the larger firms for which derivative instruments are being traded. In particular, portfolio managers may favour the stocks that make up Standard and Poor's 500 index or the New York Stock Exchange index, or the stocks for which futures contracts are traded on the Chicago Mercantile Exchange and the Chicago Board of Trade. All of these stocks are mainly those of large companies. The stocks of smaller companies are usually traded over the counter; in the United States, they are part of the NASDAQ (National Association of Securities Dealers Automated Quotations) index. As a result, relatively small companies that already find it difficult to secure equity financing might face even greater problems. If that were true, then there should be a greater demand for the stocks listed on the New York Stock Exchange than for those listed on NASDAQ, and that should be reflected in a greater increase in the Dow Jones index or in the NYSE index than in the NASDAQ index during a boom – and in a smaller drop in a declining market.

As can be seen in Chart 3-5, the stock-exchange and over-the-counter indices moved closely together between 1982 and 1985; in 1986 and early 1987, however, the Standard and Poor's and Dow Jones indices increased much faster than the NASDAQ index; and in 1987 the NASDAQ index registered a much stronger decline. While there are undoubtedly other factors that contributed to the faster rise of the stock-exchange indices – such as the flurry of mergers and acquisitions that affected a number of firms listed on the New York Stock Exchange – the data are not inconsistent with the suggestion that portfolio managers prefer to hold the stocks of companies for which well-developed futures and option markets exist.

Overall Impact

Forwards, forward rate agreements, options, and futures enable investors, borrowers, and institutions to achieve the level of risk exposure that they seek as hedgers or speculators. The exporter or importer who covers commercial transactions with these instruments has an edge over his competitors. So does the bank that hedges its exposure in the futures market. In that way, innovative instruments can improve the efficiency of the risk-intermediation function of the financial system.

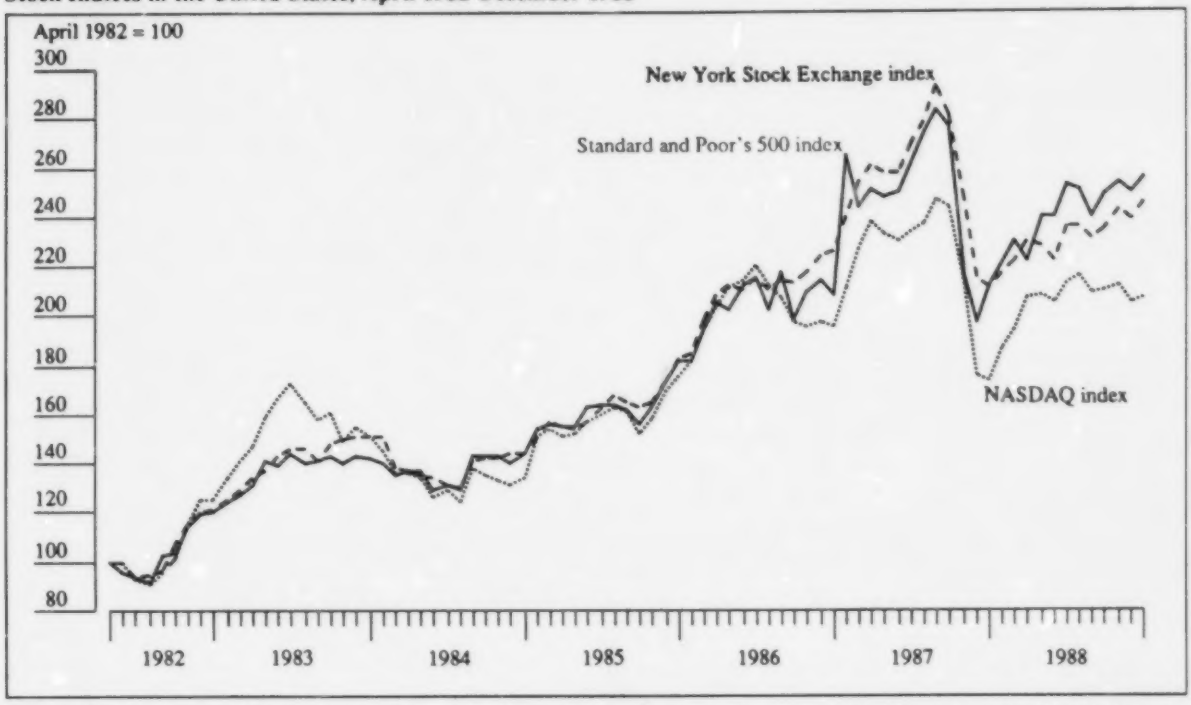
If, however, banks and other suppliers speculate with the new instruments, they may increase their exposure to risk. Because of the important function performed by the financial system in an economy and of the special protection provided by deposit insurance, this increased risk-taking is likely to entail social costs. That could be prevented by adequate supervision of financial institutions – and adequate supervision, here, is a function of the degree of transparency of the transactions. The supervisory authorities have yet to catch up with the development of the innovative instruments; and not enough historical data are available to determine how those instruments have been used. While there is little evidence that they increase market volatility, it is too soon to assess their main use – as hedging or speculating instruments – and their impact on the stability of the financial system.

Arbitraging Instruments and Processes

Swaps and "program trading" are mainly instruments and processes that permit arbitrage between different markets –

Chart 3-5

Stock Indices in the United States, April 1982-December 1988



SOURCE Based on data from U.S. Department of Commerce, *Survey of Current Business*, various years; and on Nomura Securities Co. Ltd., *Manual of Securities Statistics* (1987).

i.e., between different currencies or different instruments, or between a derivative product and its underlying instrument. Through **arbitrage**, these instruments also broaden markets and aid in the management of risks.

Through arbitrage, participants take advantage of price differences between markets in order to make a profit. The profit may take the form of a capital gain or an overall reduction in the cost of financing. For example, if the price of Bell Canada stock is higher on the Montreal Exchange than on the Toronto Stock Exchange, arbitrageurs will buy the stock in Toronto and sell it in Montreal, for a quick profit. In doing so, they will help to improve market efficiency by causing two prices that should not differ to converge. If the price of a stock future is out of line with the price of the underlying stock, arbitrageurs will bring both prices back into line by simultaneously trading in the stock and futures markets, thus taking part in index arbitrage. If the relative costs of borrowing for two companies are different in two markets – e.g., if the interest spread is 2 percentage points in one market and 3 points in the other – or if one company does not have access to the market of the other, each company will borrow in the market where it has a comparative advantage, and both will then exchange interest payments. In doing so, they arbitrage between markets through a swap.

Swaps

A *swap* is an exchange of assets, or an exchange of flows of payments related to an asset or a liability, between two parties. A swap becomes possible when each party can access a particular market at comparatively better terms than the other. The comparative advantages are then shared by both parties and by any intermediary arranging the transaction. Swaps enable borrowers to obtain financing by using any of a variety of new or conventional instruments and then dealing specifically with (or "unbundling") the price risks associated with an undesired currency or interest-rate structure. The two categories of swaps that are of immediate interest here are currency and interest-rate swaps (see box).

Swaps

A currency swap is an exchange involving interest payments in two different currencies. The parties may also exchange the principal amounts at a negotiated exchange rate. At maturity, the principal amounts may be swapped back at a pre-arranged exchange rate.

In an interest-rate swap, two counterparties exchange interest payments on a notional asset – usually a fixed- versus a floating-rate stream. Cross-currency interest-rate swaps involve the exchange of fixed- versus floating-rate payments in two different currencies. The principal amount remains with the original parties, and only the interest payments are swapped. Basis swaps are an exchange of floating-rate interest payments calculated on one basis for floating-rate payments in the same currency but calculated on another basis – e.g., an exchange of the dollar/LIBOR rate for the dollar/commercial-paper rate.

* * * * *

Swaps – particularly interest-rate swaps – are off-balance-sheet commitments for many financial institutions, because they do not involve the payment of any principal but only the exchange of interest payments. They do not, as such, appear in either the liabilities or the assets of institutions. That does not mean that there is no credit or default risk involved. Indeed, the performance of the counterparty depends on its ability to meet, on a continuous basis, its obligations under the contract. The institution that has swapped with that counterparty runs the risk of having to reconstruct the swap or to enter into a swap agreement with another counterparty at less favourable conditions. That is a price risk that is linked, however, to the credit risk of the counterparty.

There are different ways of measuring swaps – either by the risk to the financial institution or by the amount of business in swaps. For example, one might want to know the amount of principal on which the swap is based – what is sometimes called the "notional" principal. Or one might want to determine the exposure of the financial institutions or its potential loss in case of default of a counterparty. The Office of the Superintendent of Financial Institutions in Canada is currently engaged in trying to define what would be the most appropriate measure from a prudential and supervisory point of view. Some of the measures proposed by the International Swap Dealers Association, for example, suffer from double-counting, as the same amount involved in two opposite transactions – from the first counterparty to the dealer, and from the dealer to the second counterparty – would be counted twice. Only inter-dealer transactions would be netted out.

Currency Swaps

Most currency swaps are related to foreign borrowings. Arbitrage opportunities between markets in different countries arise when borrowers face different interest rates, after adjustment for expected exchange-rate movements. These differences may exist because of differences in the taxation system or in the perception of an individual borrower's credit standing.[18] For example, some investors may demand different risk premiums for the same company in the dollar and nondollar Eurobond markets.

In the early days, banks or securities firms would only act as an intermediary to find a counterparty to each trade. Today, however, the large U.S., British, and Swiss banks, as well as the large U.S. securities dealers, are running books on swaps: they do not immediately look for a counterparty and are willing to swap currencies out of their own inventory.

The U.S. dollar and the Swiss franc were the currencies most often swapped until 1985 (Table 3-6). That is not surprising, given the importance of the U.S. currency in international markets and of the Swiss franc in foreign borrowings. After 1985, however, the Japanese yen became the most important swapped currency.

Interest-Rate Swaps

The gains from interest-rate swaps are described in the box. The cost savings result from the differential in the credit rating of the two counterparties, as well as from the fact that spreads in the fixed-rate market are wider than those in the floating-rate market – understandably so, since credit risk is more significant in the context of a longer- than a shorter-term loan. As a consequence, a greater premium is demanded of issuers with a lower credit rating in the fixed-rate debt market than in the floating-rate market.

Volume

Reliable data on swaps are scarce. There is no consistent reporting of these transactions by financial intermediaries, particularly since procedures are just being developed to

Table 3-6

Swap-Driven Primary Issuance, by Currency of Issue, 1981-86

	1981	1982	1983	1984	1985	1986
			(Millions of U.S. dollars)			
Australian dollar	--	--	--	132	1,850	3,382
Austrian schilling	--	--	--	41	53	--
Belgian franc	--	--	--	--	--	117
British sterling	--	--	77	355	404	438
Canadian dollar	61	71	174	330	722	1,444
Dutch guilder	--	--	--	33	--	91
Danish kroner	--	--	--	--	105	61
Deutschemark	--	--	197	132	1,034	1,244
European currency unit	--	--	432	839	2,927	2,638
French franc	86	--	--	--	167	334
Italian lira	--	--	--	--	--	35
Japanese yen	--	144	--	282	5,524	10,481
Luxembourg franc	--	--	--	--	36	45
New Zealand dollar	--	--	7	--	889	736
Swedish krona	--	--	--	--	--	43
Swiss franc	70	514	1,047	1,296	2,226	4,874
U.S. dollar	716	1,511	1,520	2,449	3,400	8,675
Total	933	2,240	3,454	5,889	19,337	34,638

SOURCE J. Lipsky, E. Evans, and S. Elhabashi, *New Issue Activity in International Bond Markets – 1986-87 Review and Outlook* (New York: Salomon Brothers, Inc., February 1987).

Interest-Rate Swaps: An Illustration

Two corporations – Company A, with a triple-A rating, and Company B, with a triple-B rating – are in need of funds. Company A wants a floating-rate liability, whereas Company B wants a fixed-rate liability. Because of its more favourable credit rating, Company A can raise funds at better conditions than Company B, in both the fixed-rate and the floating-rate market. Despite the absolute advantage enjoyed by Company A, an opportunity for arbitrage exists here: each of the two companies may be able to save by accessing the market in which it has the greatest relative cost advantage or the lowest cost disadvantage. The two companies can then enter into an interest-rate swap.

Company A will borrow on the fixed-rate market at 10.8 per cent and then transfer this fixed-rate loan to Company B at 10.9 per cent – 10 basis points higher than its actual cost but still 110 basis points below what Company B would have to pay on the fixed-rate market.

At the same time, Company B will borrow on the floating-rate market at the current London Interbank Offered Rate (LIBOR) plus 0.75 per cent; it will then transfer its floating-rate loan to Company A and absorb the cost of 75 basis points.

Overall, Company A will save 25 basis points on its floating-rate cost – since it can borrow at LIBOR plus 0.25 per cent – plus the 10 basis points it receives from the additional charge to Company B on its fixed-rate cost, for a total saving of 35 basis points.

As for Company B, it will save 110 basis points on its fixed-rate cost, less the 75 basis points that it incurs from transferring its floating-rate borrowing to Company A at below its cost, for a total saving of 35 basis points.

These calculations do not take into account the fee collected by the intermediary on both sides of the transaction.

measure off-balance-sheet commitments. A recent IMF report estimates the amount of currency and interest-rate swaps to have been over $500 billion in 1986.[19] More recently, the volume in the interest-rate swap market has been estimated at US$250 billion for the first half of 1988, on the basis of a survey conducted by the International Swap Dealers Association. The volume in the currency swap market has been estimated at US$120 billion, on a much smaller number of transactions – 3,697 against 12,617 for interest-rate swaps.

A better indication of the growing importance of swaps is the proportion of issues on international markets that are swapped. It has been estimated that during the first quarter of 1989, about half of all fixed-rate Eurobonds were swap-related – up from 33 per cent in 1987 and 39 per cent in 1988. Virtually all ECU (European-currency-unit) issues, more than 90 per cent of all Australian-dollar issues, and more than 75 per cent of all Canadian-dollar issues were swapped across currencies.

Another measure of the development of the swap market is provided by the swap commitments of financial institutions. Those of U.S. banks increased by almost 225 per cent between 31 December 1985 and 30 September 1987 (Table 3-7). The six largest swap managers – Citibank, Chemical Bank, Bankers Trust, Manufacturers Hanover, Morgan Guaranty, and Chase Manhattan Bank – account for more than half of the commitments. In Canada, the swap commitments of four large Schedule A banks for which data are publicly available amounted to C$50 billion in 1986 and C$86 billion in 1987. On average, the increase between those two years is comparable to that observed in the United States over the same period.

Table 3-7

Swap Commitments of U.S. Banks, 1985-87[1]

	Swaps
	(Billions of U.S. dollars)
December 1985	186
March 1986	220
June 1986	266
September 1986	314
December 1986	366
March 1987	451
June 1987	520
September 1987	602

1 At the end of the months shown.
SOURCE Federal Reserve System, *Call Report* (1988).

Canadian Developments

Many Canadian companies use swaps in connection with their borrowings in foreign currencies. These are immediately swapped back into Canadian dollars, unless the proceeds are needed to finance operations or acquisitions in other countries. In general, nonfinancial corporations do not like to have currency exposure, and they use swaps to eliminate that type of risk.

In February 1988, the Canadian government entered into a swap agreement with a Canadian financial institution for the first time. The arrangement involved two swaps – one for $100 million over five years and the other for $200 million over about four years. The government swapped fixed-rate payments for floating-rate payments. The counterparty benefited from the government's high credit rating and its low cost of funds. It has been estimated that, by obtaining a better floating rate from its counterparty, the federal government will save about $2 million a year on the $300-million transaction.

A number of provincial governments are already active in the swap market (see box). The entry of the federal government will enhance the liquidity of the market and generate cost savings for borrowers from outside the public sector, who will benefit from the government's high credit rating.

The banks are maintaining an active market in Canadian- and U.S.-dollar swaps. Schedule B banks, in particular, are very active in that market. Prior to their takeover by the banks, Canadian securities firms, because of their low capitalization, did not generally run their own swap book and looked for a counterparty whenever a client asked them to arrange a swap.

Risks

By permitting a better match between the term to maturity and the interest-rate characteristics of assets and liabilities, swaps reduce the price or interest-rate risk faced by financial institutions. At the same time, however, they carry a credit risk – i.e., the risk that a counterparty will fail to honour its commitments.

Should counterparty failure occur, the loss suffered by the other party to the swap is represented by the cost of recontracting a similar swap agreement with another party. That cost will depend on the movement of interest rates or currencies during the period between the original swap contract and the signing of the new swap agreement. There may be no cost at all if the markets move favourably; but

The Benefits of Risk Management: A Canadian Illustration

The example of the province of Manitoba may be used to illustrate the benefits to a borrower of the use of risk-management instruments.

In fiscal year 1982-83, Manitoba entered into a currency-exchange agreement whereby 12 billion yen of debt was converted into a US$52.5-million debt. Between then and 1987, the yen appreciated, increasing in value by about 85 per cent relative to the Canadian dollar. During the same period, the U.S. dollar appreciated relative to the Canadian dollar by about 7 per cent. Had the province not entered into that agreement, interest on the debt would have been payable in yen rather than in U.S. dollars. Since the yen appreciated so much more than the U.S. dollar, the province's action resulted in an estimated interest saving of C$4.8 million in 1987.

This kind of hedging protects against losses if exchange rates move against the borrower. But if exchange rates move in a favourable direction, it will result in the loss of a capital gain. The government of Quebec, for example, has entered into more foreign-currency agreements than the government of Manitoba. While hedging was profitable, overall, in certain transactions, Quebec would have been better off not to have used currency agreements, since the exchange rate moved in its favour. But nonfinancial corporations and governments are not in the financial business, and it is important for them to have a certain return on the sale of their product or to know with some certainty the cost of their borrowing.

the cost may be quite high if interest rates or currencies move adversely. The replacement cost is the present (or discounted) value of the difference between the original interest rate and the new interest rate on the replacement swap. It is difficult, however, to forecast the expected loss on a swap contract – i.e., the cost of recontracting multiplied by the probability of failure – because the former depends on the timing of the default and there is not enough historical evidence to assess the latter.

All in all, the credit risk of a swap depends on a number of factors: the credit rating of the counterparty, the correlation between the swap value and interest rates, the volatility of interest rates, the frequency of payment, the swap maturity, and the presence or absence of collateral. The credit risk also differs for floating- and fixed-rate instruments. The floating-rate payers are usually very large firms or government agencies, and they have a high credit rating. That is usually not the case with fixed-rate payers, which tend to be companies with a lower credit rating. It has, however, been asserted that credit risk is lower for swaps than it is for loans.[20]

If the bookrunner (or portfolio manager) has fully hedged his position by entering into two perfectly matched swaps, with interest receipts matching interest payments, then there is no interest-rate risk. If, however, he carries an open swap position – i.e., if he has not balanced his position with an opposite swap – then interest-rate risk may still occur. Since bookrunners make a living out of keeping open positions, they are indeed exposed to interest-rate risk. They are speculators who act as counterparties to companies or governments that hedge through interest-rate and currency swaps. Bookrunners also use other hedging mechanisms, such as the holding of securities, futures contracts, and even floating-rate instruments. This protects them from movements in interest rates.

While these risks are certainly manageable, it is not clear to what extent the large swap dealers have adequate internal mechanisms in place to control their overall risk position. In addition, it is very difficult for regulators to supervise the major swap bookrunners or even the investors in swaps, because of the lack of transparency of these transactions, which do not appear on the balance sheets of those who conduct them. Another potential problem is that swap agreements often involve counterparties of different nationalities and are denominated in different currencies. It is not clear to what extent a swap contract is legally enforceable under different jurisdictions. So far, these aspects have not been tested, as there have been no major counterparty defaults in swaps.

Overall Impact

The rapid growth in swaps in recent years suggests that they address a real need. They permit arbitrage between markets in different currencies or between markets for floating versus fixed rates, taking advantage of differences in the perception of risk and in information on borrowers, as well as differences in taxation and regulation. These differences tend to reduce the overall social efficiency of financial markets by limiting access to those markets. By performing an arbitraging function, swaps increase access and thereby contribute to increased efficiency. In so doing, they also generate increased activity in various markets and thus have a market-broadening role. In addition, they enable various

borrowers and investors to take currency or interest-rate positions in their preferred markets. In that sense, they contribute to the management of risks. They lower the cost of funds for borrowers by breaking the link between the form and location of borrowing from the form in which funds are needed. They carry some credit and price risk, but these risks are lower than those associated with traditional bonds and loans.

Thus swaps have an overall positive impact on the efficiency of financial and risk intermediation and on the economy as a whole. By breaking the relationship between the form and location of borrowing from the form in which funds are needed, they have revolutionized the world of finance. And their role cannot be duplicated by other instruments. For example, a borrower requiring Canadian dollars could borrow Japanese yen and then could, through the use of options or futures, hedge the exchange risk. This type of hedging, however, would be for a shorter time period than that provided through a swap. At the same time – and more importantly – the use of options or futures simply transfers the position risk to someone else who must be paid to carry it. In a swap, on the other hand, since each party ends up with the interest-rate structure and currency liability that it requires, there is no need to pay a third party to carry the risks. This is why everybody gains in a swap. Thus the development of swaps is almost as important as the development of financial intermediation itself, which broke the tight link between savings and investment.

Program Trading

Program trading is an arbitrage technique – at least in the more recent use of the term – that also has market-broadening and risk-management impacts. The growth of markets for derivative products has given a new dimension to two components of program trading – namely, index arbitrage and portfolio insurance.

Index Arbitrage

Originally, the expression "program trading" referred to any "buy" or "sell" strategy simultaneously involving a large number of stocks. More recently, it has been used to refer to **index arbitrage** – a form of arbitrage where operators simultaneously take positions in the index and cash markets to derive a profit from misaligned prices.

Some measure of arbitraging is obtained by estimating the volume of trades taking place through the computerized system of the New York Stock Exchange (the DOT system), which is used by most program traders. It has been established that at least 95 per cent of all program trading is generally performed through the DOT system. On 10 March 1987, program trading represented 4.5 per cent of DOT market orders; on 19 June 1987 – a settlement date on the futures market – it accounted for a high of 55.6 per cent. On "Black Monday" (19 October 1987), program trades accounted for 28.1 per cent of all DOT market orders. On average, the orders from program traders accounted for 18 per cent of DOT market orders and approximately 4 per cent of the volume of shares traded.[21] In Canada, index arbitrage is almost nonexistent because of the lack of developed organized markets for derivative products.

Portfolio Insurance

Program trading is often considered to include the so-called **portfolio insurance** technique, which is a continuous rebalancing of a portfolio between equity, debt, and cash.[22] The successful implementation of portfolio insurance assumes an automatic selling at prespecified trigger points and a market that is liquid enough to accommodate that selling without generating too much movement.

The development of the markets for derivative products gave a shot in the arm to portfolio insurance by allowing the adjustments to take place in the futures markets. The cost of rebalancing a portfolio could be quite high if the strategy has to be implemented in the cash market. A portfolio manager who has reached a trigger point in a declining market may sell futures contracts on a stock-index option. This reduces the share of stocks in his portfolio. Should the stock market pick up, the manager would unwind his position – i.e., buy back the contract. The selling and subsequent buying of a futures contract is much cheaper than the selling and buying of the underlying stock. Moreover, should the manager expect the decline to last, the selling of the futures contract could be a temporary measure until he can sell the underlying stocks and then unwind his position on the futures market. It has been estimated that about $80 billion of assets in large U.S. portfolios were covered by this technique just before the October 1987 market crash.[23] That figure represented only about 5 per cent of the assets of insurance companies and pension funds – the institutions most likely to use such techniques. The comparable amount in place in Canada is much lower – almost negligible.

Risks

It has been argued that index arbitrage increases the volatility of the cash markets and thus raises the instability of

financial markets overall. In particular, much debate was generated by the October 1987 stock market crash – which some observers attributed to program trading – and the debate was kept alive by the publication of a number of reports on the stock market crash (see Appendix C). As a result, a number of measures were adopted by the authorities to limit the development and extent of futures markets, index arbitrage, and portfolio insurance.[24]

While there was increased trading involving arbitrage and portfolio insurance, the strongest argument against blaming the extent of the costs on those techniques and on the futures market is that they are only vehicles for expressing and implementing the downward revision in value already made by stockholders. If a market moves abruptly for a technical rather than a fundamental reason, it should soon thereafter return to its previous level. That was not the case, however. While portfolio insurers did play an important role in the developments leading to the October 1987 crash, it has been argued convincingly that they would have been able to readjust or rebalance their portfolios in the cash market if the futures market had not been available to them. Thus one can conclude that the futures market and program trading had no direct role and may even have taken some pressure off the cash market.

While index arbitrage and portfolio insurance did not cause the October 1987 market decline and did not exacerbate or accelerate it, the use of those arbitrage techniques remains shrouded in controversy. They allow for better risk management when used to adapt portfolios of securities to new economic and financial conditions. By integrating the cash market with the market for derivative products, they also have a market-broadening impact. But their development will certainly be slowed, if not stopped, by the belief that they have a negative impact on the stability of markets.

Conclusion

Many instruments have been developed in response to specific problems. The development of asset-backed securities, note-issuance facilities, and Euro-commercial paper took place in response to the loss of credit rating of financial institutions and to the illiquidity of the mortgage and loan markets; the development of swaps, interest-rate, and currency options and futures was in response to increased volatility in interest rates and exchange rates. These instruments have long-lasting effects, however, which will most likely remain even if the immediate factors behind their introduction should disappear. The new instruments have raised the liquidity of markets, lowered the cost of financing, increased the risk-adjusted returns to investors, and enhanced the efficiency of financial institutions by enabling them to specialize in activities in which they have a comparative advantage.

From Canada's point of view, two groups of instruments are of particular interest: asset-backed securities could inject much-needed liquidity in the mortgage and loan markets and bring much-needed funds to many regions of the country while allowing institutions to diversify; swaps could open new sources of funds for many Canadian borrowers, particularly in international and foreign markets.

The innovative instruments and practices described above have, as best as can be determined, provided net benefits for both their users and their producers, and for the Canadian economy as a whole. It is true that the increased use of these instruments and practices may involve greater risks for some market participants and that regulators are still learning how to assess and deal with the risks. Of particular importance, in this respect, is the loss of transparency of the financial system that is associated with the use of some of these instruments. This loss of transparency could hide important interconnections and dependencies among financial institutions and could result in too much risk being carried by some market participants, unseen by regulators or other market participants. However, since the new instruments and practices benefit both the users of financial services and the financial institutions themselves, and since regulators are learning how to deal with the risks involved, the new instruments and practices are unlikely to disappear. A further factor militating in favour of their continued use is that many of the new instruments have also facilitated the internationalization of financial markets.

4 Internationalization of Financial Markets

While the internationalization of financial markets is a phenomenon of the late 1970s and early 1980s, there has always been a degree of interaction between the financial markets of different countries, and cross-border movements of capital and financial institutions with operations in more than one country have been with us for centuries. Indeed, banking activity in the 14th and 15th centuries largely catered to the needs of merchants who operated in foreign countries. Signs of that activity have remained to this day: for example, Lombard Street, in the heart of the City, was named after the early bankers who came to London from the Italian region of Lombardy.

Canada itself has long been familiar with international capital flows. This country's economic growth was financed, to a large extent, by imports of capital, first from Britain and then from the United States. Some Canadian banks opened offices in New York and London shortly after they were established early in the 19th century. As well, several Canadian life insurance companies began their foreign operations in the 1880s. Indeed, among modern economies, Canada has one of the longest histories of internationally open financial markets.

But the globalization of financial activities, that is now such a large part of our contemporary world economy, goes well beyond flows of capital or the establishment of bank offices abroad, as important as they may be. With modern methods of communication, and financial markets that have become much more open, investors, borrowers, and financial institutions now have a much different mindset than was the case 15 or 20 years ago. They are aware of conditions throughout the world and can obtain information easily on the opportunities and risks in distant places. As a result, investors, borrowers, and institutions in much of the industrialized world, and to a lesser degree elsewhere, have large ongoing financial and other business relations with those outside their home countries' borders. Especially for small and medium-sized countries that, like Canada, are also open, the influence of events elsewhere is rapidly transmitted across their borders. That is the critical element which distinguishes the internationalization of financial markets in the late 1970s and 1980s from the arrangements and procedures that existed previously.

In the first chapter, some of the measures of the growth of internationalization were discussed briefly. Here, we tell a fuller story about the growth of international markets. The various ways of measuring the extent of the globalization process are set out and the data presented. Against the framework of these trends we then consider the performance of Canadian financial institutions in international markets, banks, and securities houses in particular, and the implications of the internationalization process for Canadians. Data are presented on Canada's large and growing reliance on international markets as a source of capital; and we also assess the role of Canada's financial institutions as suppliers on these world markets.

The globalization process came about as borrowers, lenders, and portfolio managers were able to benefit from the use of financial markets outside their own countries. In addition, there were a number of events and factors that contributed to that process. The incentives for using international markets are first discussed followed by the contributing factors.

The Incentives

In the past, the growth of international trade provided the stimulus for financial institutions to operate abroad; that is the main reason why Canadian banks opened branches or agencies abroad and established links with financial institutions in other countries. But international trade also created the need for importers and exporters to manage a portfolio of foreign currencies and to hedge against adverse movements in exchange rates. That dimension has been particularly important for the Canadian economy, since the proportion of imports and exports in Canada's GDP has been larger than that of many other western industrialized nations.

The recent increased usage of international and foreign markets,[1] however, has largely been linked to two other major factors. The first has been the decisions of governments, corporations, and financial institutions to raise both long-term and working capital abroad or to seek investment opportunities in other countries. For borrowers, in particular, this has been the result of the search for the least costly source of funds. The second factor has been the desire of financial institutions and other holders of wealth to diversify portfolios internationally in order to reduce risk.

Availability and Cost of Funds

For large corporations and some governments, the access to international and foreign markets widens the range of borrowing opportunities and, at times, enables them to raise funds more easily and at a lower total cost than on domestic markets. Indeed, among the respondents to our survey who had borrowed abroad, 85 per cent cited the lower cost of funds as one of the main reasons for using foreign markets.[2]

When a corporation wishes to float a large bond or stock issue, it must consider the impact that the size of the issue will have on the take-up price. In a medium-sized market such as Canada's, for example, a large issue may depress the price of that security, thereby increasing the cost of funds to the borrower. The ability to gain access to a number of foreign and international markets provides corporations with the opportunity to tap a larger pool of savings than would otherwise have been available at the same price in the domestic market.

Of course, funds are not always less costly in one particular market than in another. For example, the financing advantage of issuing 10-year AA-rated bonds in the Euromarket rather than in the U.S. market may run as high as 20 basis points (one fifth of a percentage point) at times. At other times, the advantage may lie with the domestic market. The financing advantage may thus shift from one market to another several times a year.[3]

Portfolio Diversification

A portfolio of domestic assets that is already well diversified may be improved upon, in terms of risk and return, by diversifying it further into foreign assets. In a portfolio that consists only of domestic assets, the returns on those assets tend to move together in response to changes in domestic economic conditions. Inasmuch as underlying economic conditions tend to differ between countries, the returns on foreign assets will tend to move less closely in line with the returns on domestic assets. Thus the inclusion of foreign assets in a portfolio may help to reduce the risks flowing from underlying domestic economic conditions and raise the risk-adjusted returns of the whole portfolio. Several studies have confirmed the benefits of international portfolio diversification.[4]

Contributing Factors

The quest for lower cost sources of funds and for more diversified portfolios was, in turn, facilitated by a number of underlying factors. For example, changes in regulatory structures in a number of countries and the removal of capital controls had a major impact on increased international capital flows and have resulted in heightened borrowing and investment opportunities abroad. In turn, the globalization process itself has stimulated the removal of some controls and the implementation of regulatory changes in some countries. The rising imbalances among nations, which to some extent have been facilitated by that process, have also created new opportunities for greater internationalization, as funds had to be recycled from surplus countries to deficit countries. The rise of multinational corporations, the greater availability of information, the development of some innovative financial instruments, and the reduction in transactions costs as a result of improved telecommunications and computer technology also played a role.

Relaxation of Regulation

Changes in financial regulation have also reduced the cost of international transactions. The quest for portfolio diversification was aided by the relaxation of a body of regulation that, in many countries, was a legacy of the Great Depression. International financial markets, as all world markets, were severely disrupted by the 1929 crash and by the depression that followed. Many people believed that "destabilizing" international capital flows had been at least partly responsible for the poor economic performance of the interwar years.[5] As a result, the period immediately following the Second World War was marked, in a number of countries, by extensive capital and interest-rate controls, regulation of capital markets, and the withholding of taxes on interest and dividends paid to non-residents.

Over time, these controls were gradually relaxed. By 1974, the United States had eliminated all of the capital controls that it had imposed in the 1960s. In 1984, it removed the withholding tax on interest from holdings of U.S. domestic bonds by non-residents. In West Germany, the restrictions on purchases of domestic bonds and money-market instruments by non-residents were removed in 1981.[6] In 1979, the United Kingdom removed exchange controls that were designed to prevent the outflow of capital. Lending restrictions on U.K. banks were also removed, opening up the sterling securities and bank markets to foreign borrowers. In the mid-1980s, France undertook an extensive liberalization of cross-border capital flows and a dramatic reduction in its foreign-exchange restrictions. Japan has also been relaxing regulation and capital controls.

The removal of foreign-exchange and capital controls and of constraints on the development of specific kinds of financial instruments and transactions has facilitated the process

of internationalization. Ironically, some of the differences in regulation and taxation that remain between countries have also contributed to that process, because arbitraging by market participants has led to an increase in international and foreign transactions. For example, the withholding tax often levied on interest payments to foreigners on domestic securities and deposits stimulated the issuance of Eurobonds, which were not subject to such levies. Transfer taxes on security transactions, such as those found in West Germany and Switzerland until a few years ago, encourage corporations to use external markets rather than issue instruments on domestic money and capital markets.

Rising Imbalances

The rising current-account imbalances of many countries have also contributed to cross-border capital flows and to the increasing integration of domestic financial markets. These imbalances began with the oil crises of the 1970s, which resulted in the transfer of massive amounts of oil revenues to the oil-producing nations. These countries, particularly those of the Middle East, could not fully invest those funds in their domestic economies and deposited the surplus funds, almost all of which were denominated in U.S. dollars (the so-called "petrodollars"), into the Eurodollar accounts of the big banks, mainly on the London market.

The banks then had to "recycle" the funds back into investments in other countries. Euromarket and international bank lending mushroomed. The demand for petrodollars in the industrialized countries was not very high, however, largely because of the dampening effect of high oil prices. Thus the funds had to be recycled to other countries, and this led to large loans being made to a number of developing countries, which subsequently found repayment difficult or impossible because the prices of the commodities that they produced had fallen – a problem that still overhangs the balance sheets of many banks today.

In the 1980s, a retrenchment in oil prices lessened the need to "recycle" petrodollars. But by that time, the emergence of large current-account deficits in the United States and surpluses in Japan and West Germany had led to significant increases in net international capital flows. This trend, coupled with the need to finance the budgetary deficits of the United States, led to a dramatic increase in the amount of government bonds being traded on international markets.

Rise of Multinational Corporations

The rise and expansion of multinational corporations has also had an impact on the internationalization of financial markets. These companies had a need to finance their operations in local currencies. In addition, some corporations were very large, relative to the economy of their home country, and needed access to foreign sources of funds. Because of their international experience, they were better able to search for the least costly funds in various markets and to transfer these funds to their operations with financing needs. Because they operated in several markets at once, some multinational corporations were able, at times, to bypass the capital controls established by a number of countries.

Information

The presence of large financial institutions, such as banks and securities firms, in many markets around the world, together with the significant progress achieved in communications technology, has improved information on the opportunities that are available abroad. Information is a key input – and a key output – of the financial industry. Investors seeking to purchase foreign securities need information both on credit risk and on government policy in the country of origin of the securities. Information of this kind is most readily available in the latter country, but over the past few years it has increasingly become available on a worldwide scale as well.

Innovative Instruments

The availability of information, while it is a key component, will not by itself result in more foreign borrowing or more international portfolio diversification. Borrowers and investors also need access to foreign and international markets, as well as protection against some risks that arise specifically from such cross-border activity.

The development of new instruments has played an important role in this respect. Options, futures, and swaps have provided investors with the opportunity to reduce the risk associated with operations in foreign currencies and foreign markets, and they have encouraged borrowers to obtain funds in the currency with the lowest interest rate. Swaps have also enabled borrowers to tap new markets. This, together with the rapid fall in the costs of computer and telecommunications technology, has significantly reduced the costs of international transactions.

The Extent of Internationalization

As borrowers, investors, and financial institutions take a global view of their financial needs, funds move across

Table 4-1

Gross Transactions in Securities between Canadians and Non-Residents, 1978-88

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
						(Billions of Canadian dollars)					
Canadian securities:											
Sales to non-residents											
Outstanding issues	2.62	5.85	10.18	7.60	7.55	10.29	15.11	29.01	52.11	67.68	66.43
New issues	6.52	5.25	5.54	14.08	16.39	10.73	9.68	15.07	26.51	18.98	20.68
Purchases from non-residents											
Outstanding issues	2.98	5.01	8.12	7.46	8.21	10.07	11.62	24.53	44.00	61.01	60.81
Retirements	1.22	2.18	2.38	3.23	4.37	5.00	4.95	6.59	10.12	12.23	12.50
Foreign securities:											
Sales to non-residents											
Outstanding issues	2.54	3.06	5.74	6.75	5.68	10.53	20.78	36.69	53.56	97.20	53.36
Purchases from non-residents											
Outstanding issues	2.51	3.38	5.75	6.69	6.21	11.79	22.59	37.54	55.16	98.46	54.09

SOURCE Statistics Canada, *Security Transactions with Non-Residents*, Cat. 67-002, various issues.

borders in growing amounts; the international diversification of portfolios increases; interest rates tend to converge between countries; and the nationals of many countries turn to international and foreign markets. These elements of globalization are all interrelated. For example, investors can diversify their portfolios through the use of international markets, thus leading to cross-border capital flows, which, in turn, contribute to the intercountry convergence of interest rates.

Cross-Border Capital Flows

Data on gross cross-border flows should be used here, but such data are not readily available. Both inflows and outflows of funds reflect the extent of internationalization. Net flows – outflows minus inflows – measure the growing imbalances among nations and provide an indication of the growth of one of the factors behind the internationalization process rather than of internationalization itself. For example, a country with highly internationalized financial markets may have significant inflows and outflows of capital; but if its current account is in balance, net capital flows will be zero.

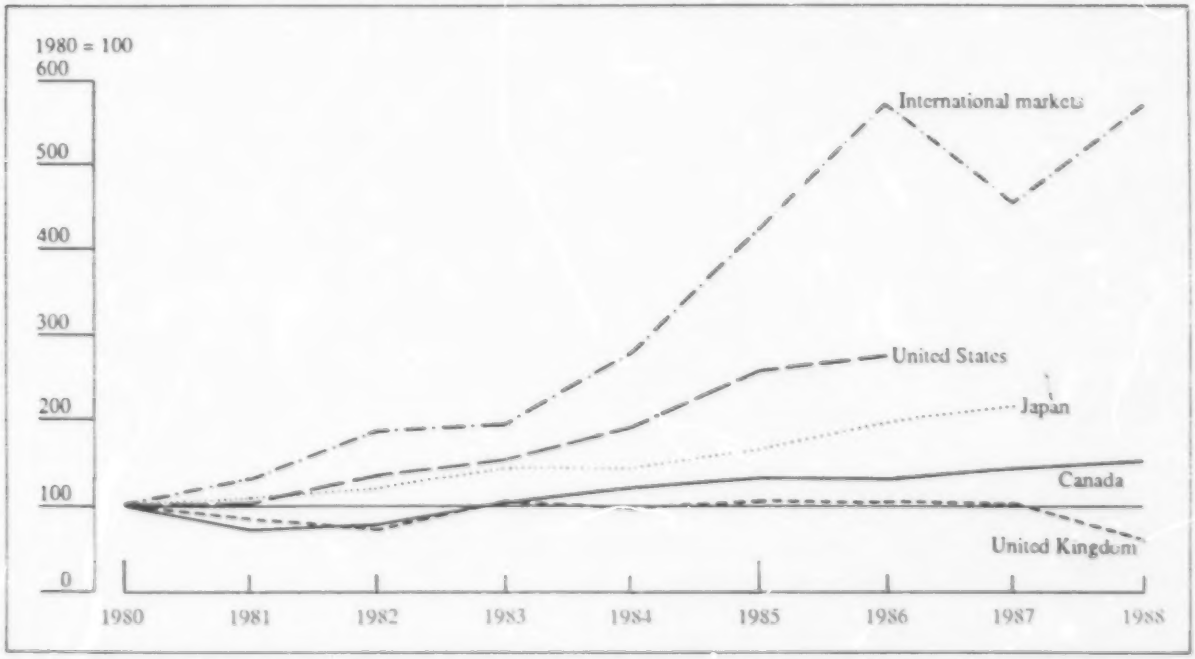
The figures for Canada, where data on both gross and net flows of securities are available, are revealing. From 1978 to 1988, cross-border trade in outstanding Canadian securities – a significant component of capital inflows and outflows – grew by more than 2,200 per cent, with most of the gains occurring since 1983 (Table 4-1). The figure for trade in foreign securities (2,000 per cent) was almost as spectacular.

While similar data are not readily available for all nations, a look at some of the components of international financing can provide an idea of the growth rate of gross capital flows worldwide. The funds raised on international bond markets in 1988 were almost six times as high as in 1980 – a rate of increase that substantially exceeded the rate of growth of funds raised on domestic bond markets (Chart 4-1).

It is not only countries with current-account deficits that seek funds on international markets. Japanese institutions now raise more money by floating bonds in world capital markets than they do in domestic markets. Japanese investors and borrowers have flocked to the Euro-yen market, which offers a wider range of instruments than the domestic

Chart 4-1

Growth of Bond Issues in Four OECD Countries and in International Markets, 1980-88



SOURCE: Estimates by the Economic Council of Canada, based on data from the Organisation for Economic Co-operation and Development and from the Bank of Canada.

market. Moreover, while outflows of long-term capital from Japan reached US$220 billion – largely in the form of securities transactions – in 1986 and during the first three quarters of 1987, short-term capital inflows, largely through banks, amounted to US$119 billion.[7] Thus Japanese residents were lending funds to themselves that had been intermediated by the international, rather than the domestic, banking system. Such "round-tripping" enabled Japanese investors to hold the kinds of securities they wanted while allowing Japanese companies to finance their operations in the most advantageous way.

Not only have the flows of funds increased on international markets, there have also been significant changes in the kinds of instruments that have been used, especially since the beginning of the 1980s. The most important of these changes has been the move away from traditional bank lending and towards securitized forms of lending, such as note-issuance facilities, floating-rate notes, and Euro-commercial paper (see Chart 1-3). The development of these new instruments marks a dramatic change in the conduct of international finance and in the degree of competition between the major banks and securities firms.

Portfolio Diversification

A second indicator of the growth in the internationalization of financial markets has been the increase in portfolio diversification.

Currency Composition

The currency composition of bond issues and bank lending is an indirect indicator of portfolio diversification, because it shows the extent to which borrowers and investors are prepared to deal in assets denominated in different currencies. The 1980s have been marked by the relative decline in importance of the U.S. dollar and by the rise of other currencies.

Throughout the 1980s, there has been a move by investors and institutions to diversify their holdings of international reserves, bonds, and loans into other currencies. This trend is the result of two factors: the breakdown of the Bretton Woods system, which meant that countries were no longer required to fix the value of their currencies in relation to the dollar; and the accelerating inflation of the second half of the 1970s in the United States, which reduced confidence in the ability of the dollar to retain its value – an important requirement for a reserve currency. Table 4-2 documents the currency diversification that occurred in the bond market as a result.

The Deutschemark and the yen were the main beneficiaries of this change. The proportion of international bonds denominated in Deutschemark has more than doubled over the period. The West German currency has been strong for many years and, in effect, is the currency to which other currencies of the European Monetary System (EMS) are pegged.[8] In addition, over 16 per cent of international bond issues in 1987 were denominated in yen, compared with fewer than 2 per cent before 1985. This rapid rise was largely the result of the liberalization measures adopted in recent years by the Japanese authorities, who are no longer reluctant to see the yen become an international currency.

Notwithstanding the decline in the value of the U.S. dollar, it has remained the main currency of issue in the markets for note-issuance facilities (NIFs) and Euro-

Table 4-2

Currency Composition of International Bond Issues, 1981-88

	1981	1982	1983	1984	1985	1986	1987	1988
					(Per cent)			
U.S. dollar	82.3	83.9	78.3	80.2	70.9	62.9	41.3	42.5
Deutschemark	4.5	6.5	8.1	5.3	7.0	9.1	10.7	13.4
Japanese yen	1.3	1.2	0.5	1.5	4.8	9.9	16.1	8.9
Pound sterling	1.7	1.7	4.3	4.9	4.5	5.6	10.7	12.2
French franc	1.6	–	–	–	0.8	1.9	1.3	1.4
Canadian dollar	2.2	2.4	2.1	2.6	2.1	2.7	4.3	7.3
European currency unit	0.5	1.6	4.4	3.6	5.1	3.8	5.3	6.4
Other currencies	5.9	2.7	2.4	1.9	4.7	4.1	10.4	7.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE Organisation for Economic Co-operation and Development, *Financial Statistics*, various issues.

commercial paper, accounting for 86 and 92 per cent, respectively, of total issues over the period 1983-88.

The rise of the yen and the Deutschemark is also attributable to the greater availability of funds in those two currencies. An additional factor in the wider use of various currencies is that the new hedging instruments – swaps, in particular – make it possible for corporations and governments to issue bonds in the currency with the most advantageous interest rate without having to bear the exchange-rate risk. This has boosted issues in the Australian and New Zealand dollars, for example, which have then been swapped back into other currencies.

The Canadian-dollar Euromarket has also benefited from these developments. In 1988, the total amount issued was C$12.9 billion, compared with C$2.1 billion in 1984 and C$58 million 10 years earlier. The recent surge is related to the strength of the Canadian currency, to attractive coupon (or interest-rate) levels, and to the development of the Canadian interest-rate and currency swap markets. Nevertheless, the Canadian dollar has not attained the stature of an international currency and is used much less often than the U.S. dollar, the Swiss franc, the British pound, the Deutschemark, or the yen. Canadian-dollar issues in Euromarkets represent a small fraction of total issues; most of them are launched by Canadian borrowers.

Asset Substitutability

The substitutability of assets denominated in different currencies – i.e., the extent to which investors and institutions are prepared to hold assets denominated in foreign currencies without requiring a risk premium[9] – is an indication of the ease with which portfolios can now be diversified. The assets of another country or assets denominated in a foreign currency may be imperfect substitutes for domestic assets, in view of such factors as the degree of asset liquidity, differences in taxation systems, and the level of credit, political, or exchange risk. As portfolio managers take a worldwide view of opportunities and as the information needed to undertake investment decisions becomes better understood, however, it becomes easier to price and hedge the risks, thus facilitating the substitutability of assets. When assets are highly substitutable, real rates of return tend to converge between countries. Thus, the greater is the degree of substitutability, the more integrated are financial markets.[10]

A number of studies have shown that there is almost perfect substitutability between Canadian and U.S. long-term bonds, indicating a high degree of integration between the markets of the two countries. The degree of asset substitutability between other countries is not quite as high, however.[11]

Narrowing of Intercountry Interest-Rate Spreads

As financial markets become increasingly integrated, deposit and borrowing rates, adjusted for inflation, should converge, and differences in operating costs and taxes should be reflected in differences in profits rather than in interest rates. Such convergence between domestic and Euro-rates for the same currency can already be observed in the wholesale deposit market. For example, the domestic deposit rate in the United States moves very closely with the Eurodollar deposit rate. The same is true for the currencies of the United Kingdom and Japan (as well as Canada). There has also been a narrowing of the spread between the inflation-adjusted deposit rates expressed in the national currencies of these countries. These findings suggest that international integration is already well under way in the wholesale deposit market.

On the lending side, it is more difficult to get a measure of the extent of integration. There are several reasons for this. First, it is not as easy to separate, statistically, retail loans from wholesale loans. Second, loans are not as standardized a product as deposits, and there may be differences in rates that have nothing to do with a lack of integration of markets. Third, lending is dependent on information, and it is costly to secure information from a distance.

Thus, even when capital markets are liberalized and deposit rates across countries are equalized, lending rates may still differ – and that is what is being currently observed. The equalization of lending rates depends on the opportunities available for securing loans from foreign lenders. At the retail level, in particular, this requires that foreign institutions be allowed to enter domestic financial markets.

International Financial Centres

The development of financial markets in any country normally involves a good deal of centralization of financial activity. In Canada, for example, Toronto has become the leading financial centre with other cities, particularly Montreal and, to a lesser extent, Vancouver being the focus of considerable activity. So too, in the international sphere, centres of international financial activity have developed. At the present time, London, New York, and Tokyo hold the top spots. In these cities, large Euromarket contracts are negotiated, the major portion of foreign-exchange

transactions takes place, and financial institutions from many nations congregate to be at the heart of international finance and to provide a broad range of financial products. Here are to be found low transactions costs, good deals, and liquid markets. In addition, financial centres are important for several other reasons.

The Importance of Financial Centres

The three major centres are several time zones apart, and this has enabled many kinds of transactions to continue on a 24-hour basis. For example, several institutions pass their "positions" (or "the book") from one financial centre to another over a 24-hour period. Through "passing the book" – still mainly limited to U.S. Treasury bonds – the trader in Tokyo can deal, within certain limits and criteria, out of the closing inventory of securities on the New York market. At the end of the trading day in Tokyo, he will pass along his closing position to a colleague in London. The ability of market participants to be able to trade currencies and major securities at any time of the day aids them in managing portfolios of risky assets. In order to participate fully in this trading activity, financial institutions must maintain a presence in at least some of these centres.

Financial activities have a tendency to congregate because the institutions that cluster in one location benefit from considerable external economies. That is particularly evident in the continuous interchange of information.[12] While information can be (and is) exchanged by telephone or by other long-distance media, many businessmen prefer to negotiate major financial transactions face to face, especially if uncertainty is involved. Indeed, one of the major reasons given by financial institutions for electing to establish a branch or a subsidiary in a foreign country, rather than simply conducting business through a less costly "suitcase" operation, is to acquire information. Because of the importance of the information input, nonfinancial corporations that are not present in a large financial centre may face difficulties in obtaining adequate financing.

No new technology has yet fully replaced direct contact for the negotiation of contracts. The banker who meets clients face to face will be more confident about the quality of the information he gathers. (Directives to the loan managers in branches of Canadian banks stress the importance of direct contact in the lending process, for example.)

The proximity of a financial centre to users of the services it provides makes the judgment of risk more accurate and enables customers and financial institutions to obtain the financing they need at the appropriate price. That is why the growing concentration of financial activity in Tokyo, New York, and London raises concerns, as it drives the locus of financial decision making further away from Canada and its outlying regions. Similar concerns have been voiced in Canada about the tendency for decision making to be overly concentrated in Toronto, Montreal, and Vancouver – to the detriment of individuals and of small and medium-sized firms located outside those large urban areas.

The large financial centres are also the locations where most new financial technology is developed, and where information on new products is most readily available. The ability of institutions to participate in the innovation process and to become suppliers of new products, necessary for providing services to their large sophisticated clients, is enhanced by being located in these centres.

Future Development

The future development of financial centres cannot, of course, be predicted with any degree of certainty; there are simply too many unknowns. The growth of large pools of funds in some part of the world may spur the development of a new centre there. On the other hand, improved telecommunications technology and regulatory changes that would allow organized markets to remain open on a 24-hour basis may promote the more rapid growth and eventual dominance of one centre. That possibility may lead to concerns with the extent of control over financial levers that would be concentrated at that point.

Some analysts argue that with the development of computers and modern telecommunications technology, financial centres will no longer be needed, as investors, borrowers, and financial institutions would engage in worldwide transactions through their desk-top computers. But, as suggested above, computers are unlikely to replace the need for direct contact in financial transactions. Indeed, the more likely future course is for increasing amounts of financial activity to be concentrated in major world financial centres.

For Canada, the major reality is that it is unlikely to be host to one of the world's leading financial centres. It is also likely that increasing portions of Canadian financial activity will be conducted abroad in international financial centres, wherever they are located.

The Use of Foreign and International Markets

While gross capital flows and portfolio diversification provide a measure of the amount of business being done on

foreign and international markets, they do not indicate the extent to which the nationals of various countries use those markets or the extent of the role played by the financial institutions of different countries. For example, even though gross capital flows are large, a small number of large banks, multinational corporations, or governments could account for all international transactions. However, to the extent that a large number of firms, institutions, and individuals are using foreign or international markets, then this would be indicative of a much broader base to internationalization.

Major Participants

The number of issues and issuers on international markets has been increasing.[13] For example, the number of issues on the markets for NIFs and Euro-commercial paper rose from 21 in 1983 to 304 in 1988, while the number of issuers rose from 21 to 278. On the syndicated-loan market, there were 1,165 issues by 684 issuers in 1983, but by 1988 those figures had increased to 1,637 and 1,140, respectively.

Issuers from the United States are the largest group of borrowers on international markets. During the period 1983-88, they led in all major categories of issues – Euro-commercial paper, international bank loans, note-issuance facilities, and Eurobonds (Table 4-3). Japan was the second largest issuer of Euro-commercial paper and Eurobonds, while the United Kingdom and Australia were the second largest issuers of international loans and NIFs, respectively.

Canada ranked fifth in the Eurobond and NIF markets, and third in the international-loan market.[14] Relative to GDP, Canadian borrowings on international financial markets are among the highest (see Chart 1-6).

These data tend to support the view that the larger the size of the domestic market, the smaller the level of foreign borrowing relative to the size of the economy. This highlights the importance of international markets for small or medium-sized countries, such as Canada.

Equity Markets

Greater use of foreign equity markets is another measure of the degree of internationalization. The purchase of domestic equity by non-residents is not new: extensive foreign ownership is a fact of life in Canada, and a substantial portion of equity in local industries is owned by foreigners in all western developed nations. What is new, however, is that many of those equities are increasingly being issued and traded in foreign and international markets, in addition to the home market.

The most significant increase has occurred on the Tokyo Stock Exchange, where the volume grew from US$35

Table 4-3

Funds Raised on International Markets,[1] by Category of Instrument, Major Borrowing Countries, 1983-88

	Euro-commercial paper	International bank loans	Note-issuance facilities	Eurobonds
		(Per cent)		
United States	18.6	41.1	30.2	17.9
Japan	13.2	0.6	2.4	16.5
West Germany	1.5	0.2	0.4	4.6
United Kingdom	8.6	15.8	9.4	9.3
France	3.9	3.2	7.4	7.3
Canada	2.6	4.3	4.4	6.1
Italy	5.5	2.7	2.5	3.6
Australia	9.6	2.9	18.1	3.5
Mexico, Brazil, and Argentina	– –	3.0	0.2	–
Other countries	36.5	26.2	25.0	31.2
Total	100.0	100.0	100.0	100.0
		(Billions of U.S. dollars)		
Total funds raised	170	1,087	109	767

1 Excluding foreign bonds.

SOURCE Estimates by the Economic Council of Canada, based on a database provided by IFR Publishing Ltd.

million in 1980 to US$391 million in 1984 and then exploded to over US$24 billion in 1987. This rapid growth is largely a reflection of the easing of financial regulation in Japan, which has enabled Japanese investors to hold a variety of foreign instruments – a possibility that was closed to them before the early 1980s. In addition, of course, foreign equities provide an opportunity for Japanese investors to invest surplus funds abroad.

Many companies want their stock listed on foreign exchanges because it gives them visibility abroad. A listing on a stock exchange will result in analysts tracking that stock and may make it easier for the listed corporation to raise funds through the sale of debt instruments in that market. In 1987, there were 36 U.S. companies listed on the Tokyo exchange and 249 on the London exchange. Twenty U.S. companies listed their stocks on all three major exchanges – New York, London, and Tokyo.

International equity issues – i.e., equity issues that are launched in several markets simultaneously, or Euro-equities – which began in 1983, grew from US$3.5 billion in 1985 to US$11.8 billion in 1986.[15]

A number of exchanges have been linked electronically to allow simultaneous trading in some of these equities and to enable trading to continue in one exchange even after the close of business in another exchange located in a different time zone. For example, the link between the Montreal and Boston Stock Exchanges – the first in North America – makes it possible for orders for inter-listed U.S. equities placed on the Montreal floor to be executed in the Boston Stock Exchange, and vice versa. Both the Montreal and the Vancouver Exchanges are linked to the Sydney Stock Exchange; and Toronto is linked to the Midwest Stock Exchange in Chicago as well. (A similar link between the Toronto Stock Exchange and the American Stock Exchange in New York was abandoned in 1988.)

While the capitalization of all major equity markets has increased significantly since 1975 – especially in Britain, West Germany, and Japan – the relative importance of the U.S. and Canadian markets has declined (Table 4-4). A large part of the increase in value of the Japanese stock market (measured in U.S. dollars) is a result of the recent dramatic strengthening of the yen relative to the U.S. dollar. When those exchange-rate effects are removed, the share of the Japanese stock market (18.5 per cent of total capitalization) is lowered to almost half of the unadjusted estimate (31.8 per cent), while the shares of the United Kingdom, France, Canada, Italy, Australia, and Belgium are adjusted upward. The adjusted figures for 1986 continue to show a decline of the relative importance of the U.S. and Canadian markets since 1975 – although the decline for Canada is quite small – and a rise in importance of the U.K. and Japanese markets.

These various indicators of the extent of internationalization of financial markets point to their importance for financial market participants. The increased cross-border capital flows, more highly internationally diversified portfolios and in particular the growth in the number of issuers on international markets bear testimony to the increased usage. For Canada, the potential benefits are quite large, as Canadians are major users of these markets.

Participation of Canadian Borrowers in International Markets

For Canadians, openness to the outside world has always been a fact of life. It should come as no surprise, therefore, that when presented with the opportunity to borrow more advantageously abroad, Canadian corporations, financial institutions, and governments moved into international markets in force. The result has been a massive shift in both the location of issuance of Canadian securities and in the currencies of their denomination.

In the period 1963-70, almost three quarters of all Canadian bond issues were placed in Canada; 24 per cent were floated in the United States, and only a very small amount were issued in other countries. In recent years, there has been a dramatic shift in those proportions (Chart 4-2). In the 1980s, some 53 per cent of Canadian bonds were issued in Canada; 11 per cent, in the United States; and over 35 per cent, in other countries.

Federal crown corporations led the move to foreign markets, closely followed by financial institutions. Whereas all issues of federal crown corporations had been placed in Canada or the United States between 1963 and 1970, 61 per cent of those issues were floated outside those two countries between 1981 and 1987 (Table 4-5). The shift to international markets, particularly in the late 1970s, was prompted by a desire to avoid crowding out other borrowers on domestic markets.

Almost all Canadian bonds issued in the United States are denominated in U.S. dollars. Between 1963 and 1970, almost no Canadian bonds placed outside Canada or the United States were denominated in Canadian dollars. Just over a third were in U.S. dollars. But in the 1970s, almost 30 per cent of these bond issues were denominated in Canadian dollars; and in the 1981-87 period, the comparable figure was 25 per cent.[16] As shown in Table 4-6, there has

Table 4-4

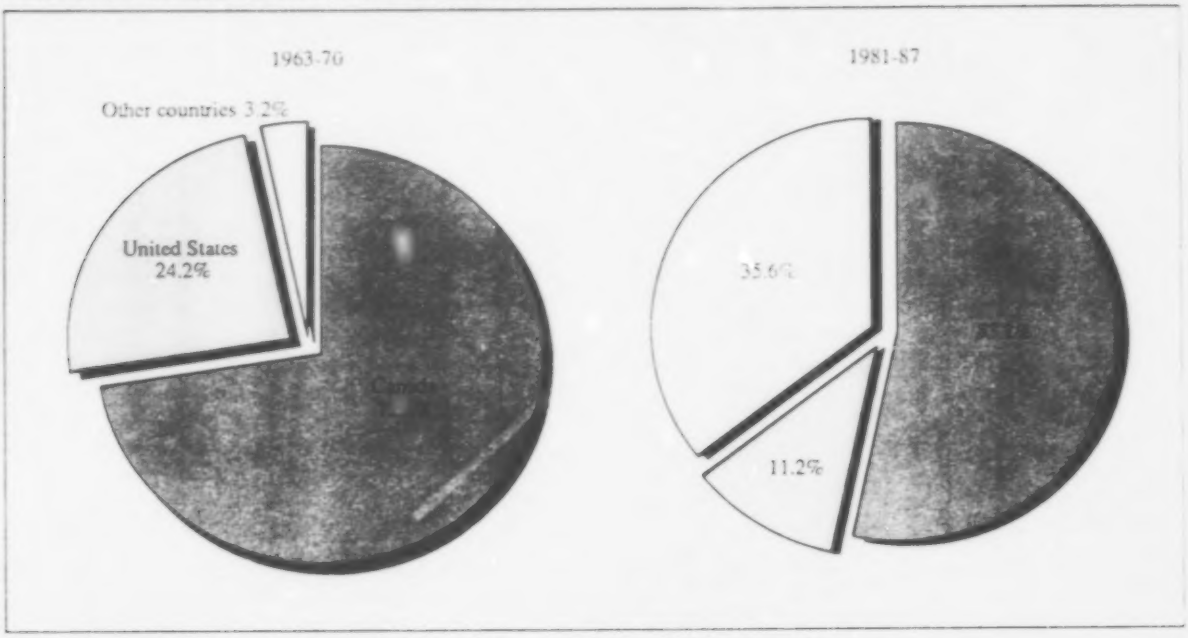
Stock Market Value of Exchange-Listed Domestic Companies, Selected Countries, 1975-86

	Market value				Relative share			Relative share in 1986	
	1975	1980	985	1986	1975	1985	1986	Market value at the 1975 exchange rate	Market value at the 1975 exchange rate and excluding price increases
	(Billions of U.S. dollars)				(Per cent)				
United States[1]	704	1,237	1,946	2,199	61.2	48.6	39.2	40.1	51.5
Japan[2]	142	379	948	1,784	12.3	23.7	31.8	18.5	15.1
United Kingdom	86	205	353	473	7.5	8.8	8.4	13.0	7.2
West Germany	51	72	184	258	4.4	4.6	4.6	4.2	5.4
Canada[3]	51	118	157	185	4.4	3.9	3.3	4.2	5.2
France	35	55	79	153	3.0	2.0	2.7	4.5	3.7
Italy	11	25	58	140	1.0	1.4	2.5	5.8	2.9
Switzerland	17	43	84	129	1.5	2.1	2.3	1.6	2.4
Australia	20	60	60	94	1.7	1.5	1.7	3.4	2.4
Netherlands	18	29	59	84	1.6	1.5	1.5	1.5	1.7
Sweden	2	13	37	63	0.2	0.9	1.1	2.0	1.0
Belgium	9	10	21	37	0.8	0.5	0.7	0.8	1.3
Denmark	4	6	15	17	0.3	0.4	0.3	0.4	0.3
Total	1,150	2,252	4,001	5,616	100.0	100.0	100.0	100.0	100.0

1 Excluding domestic companies listed on NASDAQ and regional exchanges.
2 Excluding domestic companies listed on the Osaka Stock Exchange.
3 Excluding domestic companies listed on the Montreal Exchange.
SOURCE Based on data from Securities Industry Association, "The international market: Growth in primary and secondary activity," New York, 1987; and International Monetary Fund, *International Financial Statistics*, various issues.

Chart 4-2

Placement of Canadian Bonds, 1963-70 and 1981-87



SOURCE: Estimates by the Economic Council of Canada, based on unpublished data from the Bank of Canada.

been considerable diversification of the range of currencies of bond issues in other countries in the post-1971 period.

The Council's survey of borrowers on international markets sheds some light on the factors behind the choice of currency. Among the corporations surveyed, 77 per cent chose the currency in which they were already conducting their business abroad; 65 per cent chose a currency in which their borrowing costs were the cheapest. For the provinces and municipalities surveyed, the choice of currency was dictated primarily by relative costs.

While 40 per cent of respondents to our survey had tapped foreign markets for funds, these were mainly among the larger corporations. Small and medium-sized firms remained largely captive of the domestic market. Large Canadian corporations have also experimented with the issuance of equity capital abroad, not so much because they faced a shortage of funds at home, but because they wished to diversify their base and to become better known abroad.

The Institutions

In addition to being among the more significant borrowers on international financial markets, institutions supply important services for users, such as arranging deals, managing issues, and providing loans and guarantees. While institutions from many countries are active in international markets, the vast majority of these financial services are provided by institutions from only a few countries. Collectively, U.S. institutions dominate as managers or co-managers of international loans, NIFs, and Euro-commercial paper, but institutions from several other countries have also moved into the growing Euromarkets. Canadian institutions do not have a large position in this area, particularly when compared with their U.S., Japanese, Swiss, French, and West German counterparts. In addition, they have been losing their share of these markets. While it is true that Canadian banks and securities houses are active internationally in the supply of other financial services – the selling of domestic Canadian issues abroad and the provision of some retail banking services, for example – it is participation in the Euromarkets that places institutions at the heart of the international financial decision-making process.

Two important issues are raised with respect to the loss of market share of Canadian banks. The first is the extent to which that loss need be a source of concern for Canadian users of financial markets, particularly, in light of the extensive use being made of international financial markets by Canadians, documented above. The second issue concerns

Table 4-5

Country of Placement of Canadian Bonds, by Category of Borrower, 1963-87

	Value of bonds placed	Country of placement			
		Canada	United States	Other countries	Total
	(Billions of Canadian dollars)	(Per cent)			
Financial corporations					
1963-70	2.5	78.9	20.5	0.6	100.0
1971-80	11.9	72.5	5.7	21.8	100.0
1981-87	24.9	30.7	1.2	68.1	100.0
Nonfinancial corporations					
1963-70	10.1	71.4	27.7	0.9	100.0
1971-80	26.7	73.2	19.6	7.3	100.0
1981-87	33.5	52.2	10.6	37.2	100.0
Federal crown corporations					
1963-70	--	72.0	28.0	--	100.0
1971-80	4.1	30.2	27.8	42.0	100.0
1981-87	11.9	8.4	30.5	61.1	100.0
Provincial governments					
1963-70	8.9	74.4	18.9	6.7	100.0
1971-80	35.3	75.4	15.2	9.4	100.0
1981-87	67.5	62.0	11.0	27.0	100.0

SOURCE Estimates by the Economic Council of Canada, based on unpublished data from the Bank of Canada.

the reasons for that decline and whether there is a role for public policy in strengthening the position of Canadian institutions in international markets. These are both difficult issues, and our research to date has not produced definitive answers, particularly concerning the reasons for the decline.

The relative strength of institutions from the United States, Japan, the United Kingdom, and even Switzerland is exemplified by the reliance of issuers on those firms to manage their issues. In both the Eurobond and the international-loan market, Japanese, British, and U.S. institutions played a leading role. In the NIF market, most borrowers relied on U.S. banks; even Japanese issuers called on U.S. firms for 32 per cent of the volume of their issues. In the market for Euro-commercial paper, managers from the United States, the United Kingdom, and Switzerland handled most of the transactions originating from other countries.

Performance of Canadian Institutions

Canadian financial institutions have a long history of active participation in international financial markets. In this section, the participation of Canadian institutions in a particularly fast-growing segment of that market – involving Euro-transactions – is analysed. The analysis shows that, although in absolute terms the total dollar value of that business has grown, Canadian banks and securities houses have lost a significant portion of their market share. In the Eurobond market, for example, even though the value of issues managed by Canadian institutions grew at an average annual rate of 18 per cent between 1981 and 1988, their share declined because the value of total issues grew at an average annual rate of 31 per cent.

Of course, there are other segments of international financial markets in which these institutions actively participate that have little or nothing to do with Euromarket activity – selling domestic Canadian issues abroad, providing some retail banking services, and buying and selling foreign exchange, to name just a few. All of these activities as well as Euromarket growth, have resulted in international financial markets being a strong source of growth for many Canadian institutions. For example, the international business of the six largest Schedule A banks, as measured by assets booked abroad, grew at an annual rate of almost 7 per cent between

Table 4-6

Canadian Bond Issues Placed in Countries Other than Canada or the United States, by Currency of Denomination, 1963-87

	1963-70	1971-80	1981-87
	(Per cent)		
Canadian dollar	0.5	29.8	24.7
U.S. dollar	33.5	44.1	41.2
Deutschemark	60.2	7.1	5.6
Swiss franc	2.6	13.6	15.3
Japanese yen	--	3.8	8.7
Pound sterling	--	0.3	2.8
Australian dollar	--	--	0.5
New Zealand dollar	--	--	0.1
Other	3.2	1.3	1.6
Total	100.0	100.0	100.0
	(Billions of Canadian dollars)		
Total amount of issues	0.9	13.7	66.2

SOURCE Estimates by the Economic Council of Canada, based on unpublished data from the Bank of Canada.

1982 and 1987 – over twice the rate at which their assets booked in Canada grew. In 1987, assets booked abroad accounted for over 33 per cent of their total assets.

Still, Euromarkets are such a pervasive force in the world economy that participation in them is an important aspect of the international operations of financial institutions. The scope of the international operations of Canadian banks and securities houses is indicated by the size of their operations in London – the world's foremost international financial centre. Among foreign banks and securities houses operating there, Canadians maintain a strong presence. Indeed, the staff of Canadian banking and securities dealers' offices in that city numbered over 3,400 in 1988 – in third place after those of U.S institutions (with 21,700) and Japanese firms (with 6,500).

In their Euromarket activity, Canadian financial institutions depend more on their domestic customers than do many of the large institutions from the United States and Japan – over the 1980-88 period, 54 per cent of the issues managed by Canadian banks were floated by Canadians. Yet, Canadian institutions have not been able to expand their share of this business. Large numbers of Canadian borrowers have been turning to non-Canadian institutions. The result is that the Canadian share of Euromarket activity has been declining – in the Eurobond market, for example, from a high of 6 per cent in 1976 to only 2 per cent in 1988 (Table 4-7).

The losses experienced by Canadian institutions have been mainly with respect to bonds denominated in U.S. dollars. Those losses even extend to bonds issued by Canadians. Although this is an area where Canadian institutions should have had a natural advantage, they managed only 17.5 per cent of those issues in the 1970s and only 13.4 per cent in the 1980s. The decline was most significant during the period 1986-88.

The main international strength of Canadian banks has traditionally been in the syndicated-loan market, where in the early 1980s they ranked among the top managers. However, the total volume of syndicated loans has grown much more slowly than that of Eurobonds and other Euromarket instruments. Canadian institutions were unable to capitalize on their strength in this market in order to establish themselves in other, faster-growing markets – that for Eurobonds, for example – and while the total volume of syndicated loans that they managed did increase somewhat, they did not maintain their share of this market.

As in the Eurobond market, the overall loss of share by Canadian institutions in the international-loan area resulted almost entirely from their loss in the U.S.-dollar-denominated segment. Their share in that segment fell from 6.8 per cent in 1983 to 2.3 per cent in 1988. Of U.S.-dollar loans issued by Canadians, their share dropped from 71.7 per cent in 1983 to 7.7 per cent in 1988 (Table 4-8). While Canadian institutions have retained a large share of international loans denominated in Canadian dollars, that favourable performance has had only a minor impact on the overall picture because of the small size of that market.

But there is more: compared with the institutions of a number of other countries, Canadian firms have not managed a large proportion of issues in their own currency. They managed only 32 per cent of all Eurobond issues denominated in Canadian dollars between 1980 and 1988, whereas French and West German institutions managed 100 and 88 per cent, respectively, of all Eurobond issues denominated in French francs and Deutschemark. Even domestic borrowers did not favour them unduly in this market, as Canadian institutions handled only 44 per cent of all Canadian-dollar Eurobond issues floated by Canadians. This is in contrast with the practice observed in many other countries, particularly those with institutions that have a significant presence in international markets (Table 4-9).

Even though the institutions of some smaller countries have a very small share of those markets, they tend to

Table 4-7

Share of Canadian and U.S. Institutions in Managing Eurobond Issues, 1970-88

	Canadian share of:					
	Canadian-dollar issues[1]	U.S.-dollar issues	U.S.-dollar issues by Canadians[2]	All issues	U.S. share of all issues	Total volume of Eurobonds
			(Per cent)			(Billions of U.S. dollars)
1976	36.1	3.7	13.0	6.3	16.1	13.0
1977	41.9	5.0	22.0	4.9	10.7	15.9
1978	--	0.5	7.8	0.2	10.2	12.3
1979	28.2	3.9	30.5	3.4	20.5	14.7
1980	18.7	5.0	33.9	3.6	21.0	19.7
1981	37.3	3.6	10.9	4.2	26.9	26.7
1982	18.2	2.8	15.3	2.7	30.7	48.1
1983	44.2	2.2	10.6	3.1	19.1	46.6
1984	41.2	1.5	15.8	2.5	35.5	79.9
1985	43.3	1.8	19.4	3.0	34.6	134.3
1986	48.3	0.8	10.4	2.5	27.5	184.5
1987	32.0	0.1	--	1.9	17.1	142.5
1988	23.0	0.3	7.8	2.0	19.4	179.3
1970-79	32.3	2.8	17.5	3.0	17.1	79.1
1980-88	32.4	1.4	13.4	2.5	25.5	861.6

1 Eurobond issues denominated in Canadian dollars accounted for 3.8 per cent of all Eurobond issues over the period 1966-88.
2 Eurobond issues denominated in U.S. dollars accounted for 54 per cent of all Eurobond issues by Canadians over the period 1966-88.
SOURCE Estimates by the Economic Council of Canada, based on data from the IFR database.

Table 4-8

Share of Canadian and U.S. Institutions in Managing International Loans, 1983-88

	Canadian share of:					
	Canadian-dollar loans[1]	U.S.-dollar loans	U.S.-dollar loans issued by Canadians[2]	All international loans	U.S. share of all international loans	Total volume of international loans
			(Per cent)			(Billions of U.S. dollars)
1983	72.7	6.8	71.7	7.7	28.2	100.8
1984	77.0	4.6	90.9	4.5	51.9	130.8
1985	66.1	4.2	13.0	3.6	36.6	95.1
1986	71.2	2.3	1.7	2.6	44.7	139.3
1987	100.0	3.7	10.4	3.5	45.7	243.4
1988	77.5	2.3	7.7	3.0	51.1	377.5

1 Canadian-dollar-denominated international loans accounted for only 0.75 per cent of all international loans over the period.
2 U.S.-dollar-denominated loans accounted for 73 per cent of all loans issued by Canadians over the period.
SOURCE Estimates by the Economic Council of Canada, based on data from the IFR database.

Table 4-9

Share of Eurobond Issues by Nonfinancial Corporations Managed by Own-Country Institutions, Selected Countries, 1980-88

	France	West Germany	Japan	United Kingdom	United States	Canada
			(Per cent)			
In own currency	100.0	98.6	95.6	45.8	58.3	50.8
In other currencies	26.1	93.2	87.0	28.5	31.9	20.2

SOURCE Estimates by the Economic Council of Canada, based on data from the IFR database.

manage a larger share of their own-currency issues than do the Canadian institutions. For example, while Canadian institutions managed only 23 per cent of all Canadian-dollar Eurobond issues in 1988, the comparable figures for institutions from Denmark was 95 per cent; from Italy, 71 per cent; and from the Netherlands, 70 per cent. Furthermore, all Canadian borrowers – governments, financial institutions, and nonfinancial firms – favoured foreign managers, albeit to different degrees (Table 4-10).

The federal government, when borrowing in the Eurobond market, has never called on a Canadian financial institution to manage its issues. The government borrows abroad to replenish the foreign-exchange stabilization fund, and its issues are denominated in foreign currency. The central governments of the other major industrialized countries do not generally borrow on international markets. Only those of Japan and Britain have had a few Eurobond issues between 1980 and 1988. Japan floated three issues denominated in Deutschemark and managed by Deutsche Bank. The United Kingdom launched two issues, both denominated in U.S. dollars and both managed by Crédit Suisse First Boston. By far the largest proportion of Eurobond issues by central-government and government-owned corporations and agencies is accounted for by countries whose banks do not rank high among international institutions. The major issuers – Australia, Austria, Belgium, Denmark, Finland, Italy, New Zealand, and Sweden – generally do not call upon their own institutions.

Canadian provincial governments have also relied to a large extent on foreign institutions to manage their issues on the Eurobond market. As can be seen from Table 4-11, Alberta, British Columbia, Ontario, and Quebec have not used the services of any Canadian institutions on that market; only Manitoba has relied on domestic institutions more often than on those of other countries.

Table 4-10

Share of Domestic and Foreign Managers of Eurobond Issues by Canadian Borrowers, 1980-88

	Total number of issues managed	Manager		
		Domestic	Foreign	Total
			(Per cent)	
Federal government	10	–	100	100.0
Provincial governments	92	17	83	100.0
Federal and provincial crown corporations	134	25	75	100.0
Banks	159	25	75	100.0
Trust companies	50	22	78	100.0
Private corporations	146	37	63	100.0
Municipalities	69	36	64	100.0
Universities and others	12	25	75	100.0
Total	672	27	73	100.0

SOURCE Estimates by the Economic Council of Canada, based on data from the IFR database.

Table 4-11

Distribution of Eurobond Issues by the Canadian Provinces, by the Country of Incorporation of the Parent of the Company Managing the Issue, 1966-88

	Country of parent								
	Canada	France	West Germany	Japan	Switzer-land	United Kingdom	United States	Other countries	Total
Alberta	–	1	–	–	–	–	3	–	4
British Columbia	–	–	–	–	7	–	–	–	7
Manitoba	11	–	5	–	–	–	–	4	20
New Brunswick	3	–	1	1	6	–	1	1	13
Newfoundland	2	10	4	–	1	–	–	–	17
Nova Scotia	3	1	1	–	8	–	–	–	13
Ontario	–	–	2	–	–	–	–	–	2
Quebec	–	13	10	3	6	8	–	3	43
Saskatchewan	4	–	–	1	9	–	–	–	14

SOURCE Estimates by the Economic Council of Canada, based on data from the IFR database.

Government-owned enterprises and agencies from the five leading industrialized countries have floated Eurobond issues. The financial institutions of those countries have managed issues by their own public enterprises to a larger extent than Canadian institutions have participated in the issues of Canadian crown corporations (Table 4-12). For countries whose institutions are less active on international markets, the results are quite mixed in this respect. For example, in 1988, Danish institutions managed 100 per cent of Eurobond issues denominated in kroner and none in other currencies. The corresponding figures for Italy are 100 per cent (Italian liras) and 10 per cent (other currencies). On the other hand, institutions from Austria, Finland, and Norway managed none of the issues floated by public enterprises of their own country.

To a large extent, the loss of market share in the rapidly growing international market reflects events in areas of market intermediation. At the same time, the average annual rate of growth of assets of Canadian banks over the period 1980-87 was the lowest among all the countries considered (Chart 4-3). In fact, this slow growth was such that it resulted in the largest Canadian bank slipping from 16th place in the world in 1981, in terms of asset size, to 57th place in 1987 (Table 4-13). All of the other major Canadian banks also lost ground. In comparison with the world's largest bank, Canadian banks experienced a significant decline, particularly since 1985 (Table 4-14).

The decline in the relative size of Canadian banks cannot solely be attributed to a realignment of currencies. When the figures are adjusted for changes in the relative value of currencies and differences in inflation rates, Canadian banks move up only slightly – to 53rd place, in the case of the Royal Bank. With these adjustments, some Japanese and Italian banks move down, but Canadian banks lose out to

Table 4-12

Share of Eurobond Issues by Government Enterprises and Agencies That Is Managed by Own-Country Institutions, Selected Countries, 1980-88

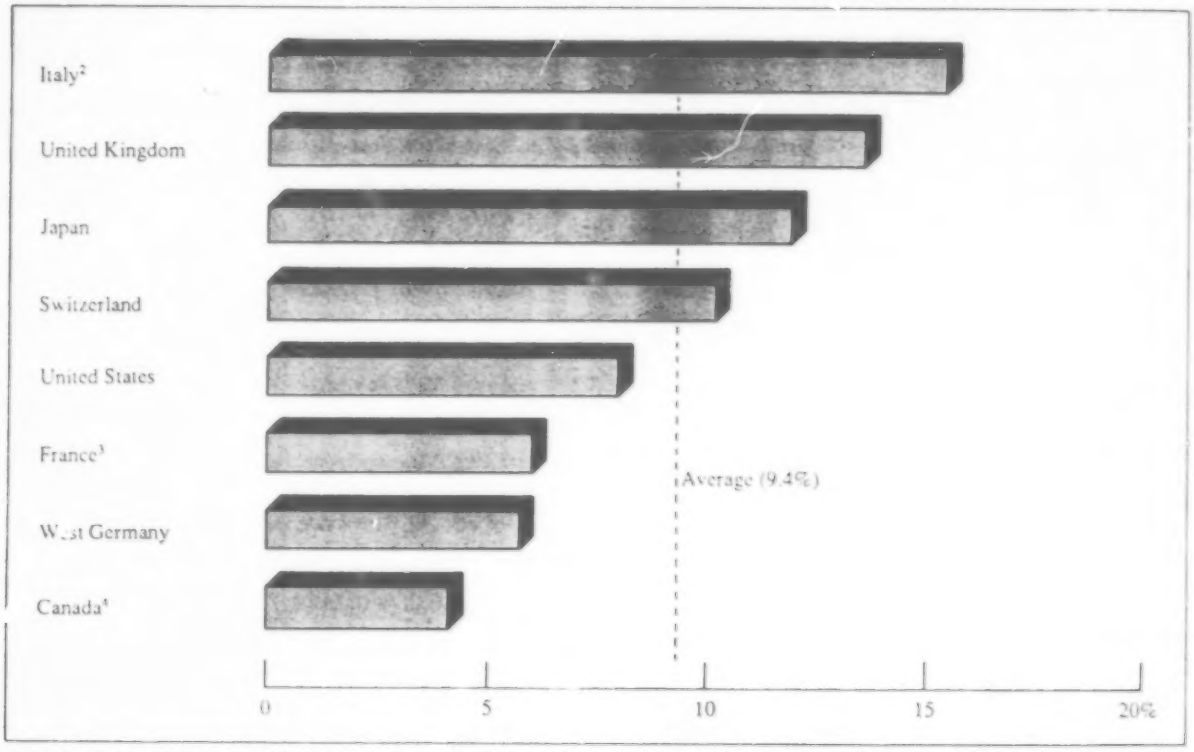
	France	West Germany	Japan	United Kingdom[1]	United States	Canada
			(Per cent)			
In own currency	100.0	100.0	75.1	100.0	46.5	53.6
In other currencies	36.6	34.8	35.7	100.0	–	4.7

1 One issue only, in both categories.

SOURCE Estimates by the Economic Council of Canada, based on data from the IFR database.

Chart 4-3

Average of Annual Rates of Growth of Nominal Assets of Major Banks,[1] Selected Countries, 1980-87



1 For Italy, the data pertain to all banks; for the United Kingdom, to all clearing banks; and for Canada, to all Schedule A banks.
2 1980-86 only.
3 1982-86 only.
4 1982-87 only.
SOURCE Organisation for Economic Co-operation and Development, *Bank Profitability, 1980-1984* (Paris, 1987), reports of various central banks, and other sources.

Table 4-13

World Ranking of the Five Largest Canadian Banks, 1981 and 1987

	Rank in 1981	Rank in 1987	Adjusted rank in 1987[1]
Royal Bank of Canada	16	57	53
Canadian Imperial Bank of Commerce	31	68	61
Bank of Montreal	35	69	62
Bank of Nova Scotia	50	80	76
Toronto-Dominion Bank	59	102	99

1 Adjusted for exchange-rate change and inflation.
SOURCE Estimates by the Economic Council of Canada, based on data from *The Banker*, various issues.

U.S. banks, as a result of the higher inflation rate in Canada, which had boosted their unadjusted ranking.

The slow growth of Canadian banks may be attributed, in part, to the fact that the pool of domestic savings available to Canada's institutions has not grown as quickly as that available to financial firms in some other countries. The pool of domestic savings in Canada, as a proportion of that of the major industrialized nations, declined from 5.4 per cent in 1981 to 3.5 per cent in 1986. Over the same period, that of Japan rose from 29.3 to 33.3 per cent.

Because of their smaller size, it may be thought that Canadian banks do not have the same staying power as some of their international competitors – particularly the Japanese institutions whose shareholders are willing to accept lower profits to gain market share.

Table 4-14

Assets of Canadian Banks, Relative to Those of the World's Largest Bank,[1] 1980-87

	1980	1981	1982	1983	1984	1985	1986	1987
				(Per cent)				
Royal Bank of Canada	47	61	57	52	45	40	28	27
Canadian Imperial Bank of Commerce	40	43	44	42	35	31	23	23
Bank of Montreal	34	41	40	39	39	34	25	23
Bank of Nova Scotia	31	33	35	34	31	26	18	19
Toronto-Dominion Bank	24	30	29	26	24	21	14	14
National Bank of Canada	12	14	13	11	10	10	8	8

1 For each year, the assets of each of the Canadian banks are measured against those of the world's single largest bank that year: Citicorp in 1980; BankAmerica in 1981; Citicorp in the years 1982 to 1985; and Dai-Ichi Kangyo in 1986 and 1987.

SOURCE Estimates by the Economic Council of Canada, based on data from *The Banker*, various issues.

In fact, many of the factors discussed above are related to the size of a financial institution. "Bigness" is not a necessary condition for success, and it is certainly not a sufficient condition. Some large U.S. firms that dominated world financial markets for a number of years eventually had to relinquish part of their share because of the heavy losses that they experienced, particularly on loans to Third World countries. And a small institution may also be very successful if it can carve a niche for itself in a specialized segment of the financial market.

Nevertheless, size may be an important factor. To meet the challenge from growing Japanese financial institutions, for example, an official of the Quebec government emphasized the need for Quebec to create its own financial behemoths ("la nécessité de créer des mammouths québécois"). A larger financial institution can withstand a competitive assault from other firms and can defend itself against predatory pricing in the fight for increased market share. Its stronger capital base also enables it to withstand outside shocks, thus enhancing its stability and the confidence of current and potential customers.

A minimum size is also needed for an institution to be an effective supplier of financing to large corporations. The Canadian subsidiaries of foreign banks have complained, for example, that the limits placed on their size prevent them from catering fully to the needs of large corporations. A minimum size is also needed to succeed in the underwriting business. Thus, it is not surprising to find that Canadian institutions manage a larger proportion of small issues than of large issues (Table 4-15).

As their counterparts in the banking business, Canadian securities firms are much smaller than their foreign competitors, especially in Britain, the United States, and Japan.

Table 4-15

Share of Canadian Institutions in Managing Canadian Issues, by Currency and by Size of Issues, 1980-88

	U.S.-dollar issues		Canadian-dollar issues
	Government enterprises	Nongovernment enterprises	Nongovernment enterprises
		(Per cent)	
Amount of the issue:			
Less than US$50 million	100.0	47.4	66.3
Between US$50 and US$74.9 million	35.8	35.7	60.6
Between US$75 and US$99.9 million	15.0	20.0	43.0
US$100 million and over	2.5	17.1	–

SOURCE Estimates by the Economic Council of Canada, based on data from the IFR database.

At the end of 1988, for example, the capitalization of the Canadian securities industry stood at US$1.6 billion, compared with US$41.2 billion for Japan and US$38.9 billion for the United States. The capital base of the largest Japanese firm, Nomura Securities, was larger than that of all Canadian firms combined. However, the future may improve for Canada's securities firms as the largest are now associated with Canadian chartered banks. They may now count on the backing of the parent company in their forays on international markets.

The size of Canadian banks, and their market power, is often of concern to some. It has been argued that relative to the size of the economy in which they operate, Canadian banks are much larger, and therefore, individually, have a larger share in economic activity than banks in most other countries. That argument is not borne out by the facts, however. In nine of the 14 western countries considered in Table 4-16, the ratio of the assets of each country's largest bank to that country's GDP is greater than that for Canada's largest bank (the Royal Bank).

But the performance of Canadian financial institutions on the Euromarkets may also be attributable to other factors internal to the institutions themselves. Foreign financial institutions are considered, by the Canadian issuers interviewed by the Council's staff, far more aggressive in their pricing strategies than their Canadian counterparts. Cost factors are always the most important consideration in choosing among various currencies and various managers. In several cases, according to the issuers, Canadian institutions were unwilling or unable to match the prices of their competitors.

The ability to place large issues abroad – a second characteristic valued by issuers – depends to a great extent on the distribution and networking systems of institutions. By the time Canadian institutions entered the Eurobond market, loyalties had already been established between Canadian issuers and foreign institutions, and the Canadian institutions could not easily displace their foreign rivals.

The larger, well-established French, West German, and Swiss banks are more successful in tapping the funds of retail investors for Eurobond issues, both in their own countries and, according to some interview responses, in Canada. Foreign firms are able to lure Canadian investors to the Euromarket and to other international markets, possibly because of the expertise and marketing strategies developed in their own countries. The results of our survey suggest that Canadian borrowers who use the services of foreign securities firms do so primarily because of their greater knowledge of international markets and their better access to investors.

Another factor that may help to explain the small role of the Canadian banks in the Eurobond markets is that, until very recently, they were prevented by law from underwriting issues of corporate securities in Canada and were thus unable to develop the same expertise in their own country as could West German or French banks. At the same time, those Canadian institutions which were allowed by regula-

Table 4-16

Size of the Largest Bank Relative to GDP, Selected Countries, 1987

	Bank	Ratio of assets to GDP
Australia	Westpac Banking	0.236
Austria	Creditanstalt Bankverein	0.355
Belgium	Banque Générale	0.469
Canada	Royal Bank of Canada	0.176
Denmark	Den Danske Bank	0.225
France	Crédit Agricole	0.244
West Germany	Deutsche Bank	0.151
Italy	Banca Nazionale del Lavoro	0.127
Japan	Dai-Ichi Kangyo	0.114
Netherlands	Algemene Bank Nederland	0.398
Sweden	S-E-Banken	0.252
Switzerland	Union Bank of Switzerland	0.734
United Kingdom	Barklays	0.245
United States	Citicorp	0.044

SOURCE Estimates by the Economic Council of Canada, based on data from the OECD's national Economic Surveys and from *The Banker*, July and October 1988.

tion to be active in the security business – the securities firms – did not have the size or the capital necessary to make inroads into foreign and international markets.

In the United States, banks also faced restrictions on their participation in the securities business. However, well-capitalized and innovative securities firms were active in areas where U.S. banks could not build a strong domestic base. In fact, while Canadian institutions were losing ground almost steadily, institutions from the United States maintained a greater market share in the 1980s than in the 1970s, although there was serious slippage in 1987-88.

It has been argued that in some countries, government authorities require government-owned enterprises – and strongly encourage domestic private corporations – to use their own national institutions to manage their issues on international markets. While some of this has been going on, conclusive evidence to this effect is not easy to come by. Nonetheless, regulation in place in some countries has undoubtedly biased the selection of managers – for example, the requirement in West Germany that only a bank incorporated in that country may manage a Deutschemark issue for a West German issuer.

But regulation has not always worked against Canadian banks. Ironically, until recently they have benefited from regulation in countries that placed restrictions on the foreign operations of their own banks. The loss of share of Canadian banks has coincided with the removal of such restrictions on European and Japanese banks.

Some institutions may be innovative and provide instruments better tailored to the needs of borrowers and investors. Although there are some exceptions, such as the development of redeemable preferred shares, Canadian financial institutions, unlike their U.S. counterparts, tend to adapt new financial products developed elsewhere rather than create them. As a consequence, they do not have special advantages over their competitors in this area.

In many respects, it is easy to understand why Canadian banks have withdrawn in significant measure from the Eurobond markets. During much of the 1980s, they have been trying to rebuild their balance sheets after the serious setbacks associated with shaky and nonperforming loans to oil companies and Third World countries. In this environment, not fighting for business in the seemingly "overbanked" and unprofitable Euromarkets of the 1980s may well have been the prudent thing to do as a short-term reaction to their circumstances. Many of their competitors, however, have remained in those markets, perhaps willing to accept some short-term pain for the potential longer-term benefits. That may ultimately give them an advantage.

While it is true that a large portion of the dealings with large firms are based, to a large extent, on who makes the best offer, there is still a place for the maintenance of a long-term relationship by a financial institution with its customers. Should a financial institution decide to abandon a particular market, it may find it very difficult to re-enter should it wish to do so. Furthermore, the firm's presence in an unprofitable market may provide opportunities, through its relations with its customers, to secure business in other, more profitable markets. That is the very reason often given to explain the continuing presence in Canada of many subsidiaries of foreign financial institutions, despite their poor performance.

In summary, there are a range of factors – some of which are interrelated – that appear to provide at least a partial explanation for the loss of share in the particularly fast-growing Euromarkets. The relative decline in the size of Canada's institutions is, no doubt, linked in part to the slow growth of savings in Canada during the 1980s, relative to several competing countries. The reluctance to maintain a strong position in the low-profit Eurobond market is probably related, also, to the need to repair balance sheets that were themselves influenced by the slow growth in domestic savings. The regulatory restrictions that once prevented banks from underwriting corporate securities in Canada may account for the lack of placing power. In addition, the banks may also have decided to redirect resources towards efforts to position themselves in the U.S. market in order to take advantage of opportunities opened up by free trade with that country.

The decline in the market share of Canadian institutions on international markets is a source of concern for two reasons. First, it may be a harbinger of things to come in domestic markets. There is, of course, a vast difference between the highly competitive international wholesale banking market and the somewhat less competitive domestic retail market, in which Canadian institutions have experience and strength. Yet, retail banking, with changing technology, is also likely to experience major changes over the next decade or two. These changes, together with the easing of restrictions on foreign participation, may present a greater challenge to the traditional dominance that Canadian institutions have enjoyed in their protected market. One should not dismiss lightly, therefore, the possibility that foreign institutions may, over time, be able to obtain an increasing share of domestic Canadian markets. This possibility calls for attention and is dealt with in the following chapter.

The second concern relates to the importance of a strong Canadian presence in global markets in order to serve the

increasingly international needs of Canadians. While most of those needs may be met by foreign institutions, there may also be critical areas where a strong foreign presence by Canadian institutions promotes Canadian interests. Being active overseas, for example, may be a means for Canadian institutions to keep up with financial technology and could result in its more rapid transfer into Canada. In addition, Canadian financial institutions may have better information and may be better attuned to the needs of their Canadian customers than are foreign institutions. They may, therefore, be better able to serve some Canadian needs than their foreign rivals, provided they are well established in international markets.

The Impact of Internationalization . . .

The process of globalization has dramatically transformed financial markets around the world. What are the implications of these changes for Canadian suppliers and users of financial services and for the Canadian economy as a whole?

As with the cross-border movement of any product or service, capital inflows and outflows have an immediate production and income effect. Theoretically, the greater movement of capital provides financial institutions – the producers of financial services – with opportunities for expansion and diversification. At the same time, individual institutions face greater competition, which may lead them to withdraw from some markets and to specialize in areas where they have a comparative advantage.

Because internationalization increases the number of participants and enlarges the pool of savings available, it lowers the cost of financial services to users. For example, in theory at least, it will cause the spreads between borrowing and lending rates to be narrowed and the fees for specific services to be lowered. This raises real incomes, as measured by the basket of goods and services that consumers can afford, given their nominal incomes.

For the economy as a whole, internationalization improves the allocation of savings and investment. At the same time, however, it affects income distribution between the suppliers of capital and the suppliers of labour.

But the analysis of the impact of globalization must go beyond the traditional trade framework and must give consideration to the special role played by the financial industry, the importance of the stability of the financial system, and the fact that it is a privileged conduit for the implementation of stabilization policies.

. . . *on Financial Institutions*

Globalization offers financial institutions new opportunities that can be translated into higher risk-adjusted returns. First, it enables them to expand well beyond their home market. Canadian banks and securities firms, in particular, benefit from being present on international markets and from having branches, subsidiaries, or representative offices in foreign financial centres. The positive externalities associated with the new information acquired on foreign markets increases their ability to meet the needs of their customers, to introduce new products, and to manage risks.

Internationalization also increases the opportunities for diversification into instruments denominated in different currencies or originating from different countries. Diversification enables institutions to increase some returns and to lower the overall risk of their portfolio.

In fact, however, Canadian institutions may not be reaping all of those benefits because of constraints imposed by domestic regulation and because they are losing out to their competitors in international markets. Institutions that manage large portfolios, such as insurance companies and pension funds, cannot take full advantage of many of the new instruments that have been developed internationally or even participate directly in world markets. The legislation governing many pension funds and insurance companies specifies the kinds of investment that they may hold in their portfolio. Because there is some doubt in law about whether they may use instruments such as options, or futures, most fund managers assume that they are prevented from entering those markets and have refrained from doing so. As a result, pension funds are unable to hedge their position risk through the use of options or futures.

In addition, the Income Tax Act imposes a penalty tax on that portion of income from foreign assets in excess of 10 per cent of the book value of all assets. That provision effectively precludes pension funds from investing more than 10 per cent of their assets in foreign securities – a restriction to which their counterparts in the United States or Britain are not subjected.

Under the new legislation proposed for insurance companies and pension funds, portfolio management would be governed by the "prudent investor" rule. That should open up investment opportunities that were not permissible until now. No proposal has been made, however, to change or remove the 10-per-cent restriction on the foreign investments of pension funds that is currently part of the Income Tax Act.

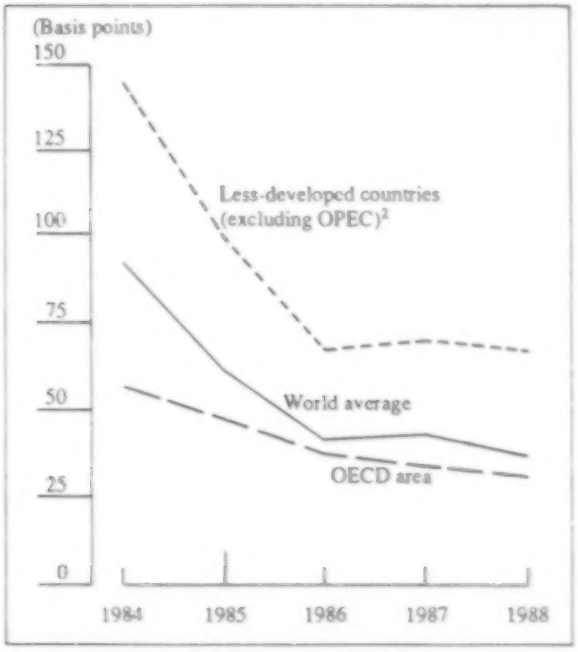
Both the opening-up of Canadian markets to foreigners and the process of globalization itself increase the competition faced by Canadian institutions in terms of prices and of the new products offered to their customers. In this respect, a distinction must be made between financial services that are internationally traded and those which are not.

In the wholesale market, increased competition has driven financial institutions to offer services at internationally determined prices and to meet international standards of operational efficiency. The retail market has been affected by the impact of internationalization on the general level of interest rates but so far, there has been little (if any) reduction in spreads.

Competition generally reduces the difference between the borrowing and lending rates of financial institutions. Chart 4-4 illustrates the sharp reduction in spreads on the international-loan market.

Chart 4-4

Interest-Rate Spreads on International Bank Loans,[1] 1984-88



1 Measured by the difference between the lending rates of banks on loans of US$30 million or more and their cost of funds, as measured by LIBOR.

2 January-September 1988.

SOURCE OECD, *Financial Market Trends* (November 1988 and February 1989).

. . . on Consumers of Financial Services

Borrowers and investors should both gain access to financial services at a lower cost of production, as a result of the increased competition between domestic and foreign institutions. Here again, it should be noted that this impact will normally only be felt in the segment of the market open to international competition.

A study conducted for the European Community has estimated the gains to consumers from the liberalization of capital flows and the integration of financial markets. The results suggest that the actualized value of these gains would range between 11 and 33 billion ECUs – i.e., between C$18 billion and C$53 billion – thanks to the lowering of the cost of producing financial services, which would be passed on to consumers.[17] This estimate is based on significant actual cost differences among member countries (Table 4-17). Italy, France, and Spain, which were among the countries with the highest degree of protection for their financial institutions, had the highest banking costs and have the greatest potential for gain, as the integration of domestic markets leads to greater convergence of the costs of providing services.

While the costs and fees demanded for various services are lower with internationalization than they would be without it, this may not be directly evident to the purchaser of financial services. For example, many Canadians believe that the fees they pay for banking services are higher now than they were in the past. And indeed they are, primarily because, in the past, the fees for the safekeeping of funds or for the maintenance of the payments system were hidden in the spread between loan and deposit rates. While service fees are higher today, the spread between loan rates and deposit rates is relatively lower than previously.

In addition, the impact of the interest-rate structure may result in higher borrowing costs than in the absence of cross-border capital flows. Indeed, in the context of the freedom of capital flows, money seeks the highest return available. Should the rate of return on physical capital be higher abroad than in Canada, there would be an outflow of capital and a consequent rise in borrowing rates. What borrowers would lose through the increase in the cost of funds, investors would gain through the higher return on their savings.

Notwithstanding the general interest-rate effect, borrowers in Canada theoretically benefit from internationalization through the broadening of financing opportunities. While that is generally true in reality for large corporations active

Table 4-17

Differences in Costs of Selected Financial Services in Eight European Countries, 1986

	Mortgages[1]	Consumer credit[2]	Letters of credit[3]	Value added in banking as a proportion of loans outstanding[4]
		(Per cent)		
Belgium	1.9	2.3	1.2	3.4
West Germany	2.3	9.2	0.9	3.6
France	2.6	8.0	0.9	4.7
Italy	1.4	..	1.0	6.3
Luxembourg	..	2.8	1.2	..
Netherlands	1.4	5.1	1.1	3.0
Spain	3.2	5.4	1.5	4.1
United Kingdom	1.2	8.6	1.0	3.0

1 Excess of average mortgate-loan interest rates over money-market rates.
2 Excess of consumer-credit interest rates over money-market rates.
3 Costs as a proportion of the total value.
4 Average for 1978-84.
SOURCE Price Waterhouse, *The Cost of 'Non-Europe' in Financial Services*, research on the "Cost of non-Europe," Basic Findings (Luxembourg: Commission of the European Communities, 1988), vol. 9.

on the bond and stock markets, it may not be the case for smaller firms that rely on local sources of funds.

For larger companies, the issue is how to take advantage of the opportunities and the lower costs offered by international markets. The results of our survey suggest that the larger Canadian corporations are making significant use of foreign markets and are well acquainted with them. Smaller corporate borrowers seldom have direct access to world financial markets, but they can take advantage of arbitraging instruments (such as swaps) to lessen that constraint somewhat.

Have financial services to small and medium-sized corporations improved or worsened as a result of internationalization? That question is still unresolved. Because of the fungibility of funds, globalization should, in theory, provide indirect benefits to smaller companies while offering larger corporations the opportunity to benefit from direct participation in world financial markets; as these corporations turn to international markets, funds on domestic markets should be freed to meet the needs of the smaller firms.

But part of the answer rests on the behaviour of the financial institutions themselves. Will Canadian banks respond to increased international competition by giving more attention to their domestic business or by devoting more resources to their external operations? Canadian customers constitute the "bread and butter" business of Canadian banks; despite the growth in internationalization, therefore, the banks are likely to devote a good deal of attention to their stable customer base at home. Because they face tougher competition both abroad and on domestic markets, however, the banks must price their services more carefully. That may result in higher prices for some services to small and medium-sized firms, which may thus lose some of the benefits that they enjoyed previously as a result of internal cross-subsidization by banks. Surveys in the United States and the United Kingdom indicate that this has indeed happened.[18] Moreover, a strategy aimed at regaining lost share may call for Canadian banks to expand abroad, given the relatively limited size of the Canadian market, even if this means paying less attention to their Canadian customer base.

Internationalization also helps savers and investors attain their preferred position with respect to liquidity and intertemporal consumption, which often differ from one country to another.[19] In the 1960s, for example, it was noted that portfolio investment by Europeans in the United States returned to Europe in the form of direct U.S. investment. Europeans preferred low-risk liquid assets while U.S. investors, who used more sophisticated management techniques, preferred higher-risk, higher-yielding assets that were less liquid. Greater integration of domestic financial markets will permit more cross-border movement in capital to satisfy these differences, raising the volume of savings and investment on a worldwide scale.

. . . *and on the Economy*

Allocation of Savings and Investment

The freedom of cross-border capital flows improves the welfare of society in the sense that it leads to an improved allocation of resources on a worldwide basis. For example, if the rate of return on capital is lower in one country than that in another, the former will experience an outflow of capital and an increase in the return on capital, while the return on labour will decrease. Similarly, the return on capital in the country that receives the capital inflow will decline, and the return to labour will increase.

It has been shown that for the capital-exporting country, the decrease in the return to labour will be less than the increase in the return to capital and that there will therefore be an overall gain to the economy. For this full benefit to be felt, however, there must be no rigidities in other markets – i.e., those for goods and, in particular, for labour. Should there be rigidities that prevent the return to labour from decreasing relative to the return to capital, there will be a breakdown in the domestic adjustment of the economy, and benefits will be lost.[20]

The freedom of capital flows also has a direct impact on income distribution. Since the return to capital in the receiving country diminishes while the return to labour increases – and vice versa for the other country – there occurs in both countries a redistribution of income between the suppliers of labour and the suppliers of capital. While this enhances overall economic efficiency in the world, it may not be perceived in such a favourable light in individual countries, as the exporting of capital to a country with a higher rate of return may result in the exporting of jobs as well. And some governments may prefer to keep the capital within their own borders – even if it earns a relatively lower rate of return there – because it could be used to create more jobs domestically. The lower rate of return to capital is a cost of job creation that often is not properly taken into account by governments.

Autonomy of Monetary Policy

Increasing cross-border capital flows tend to equalize interest-rate structures adjusted for inflation differences across countries. This has some implications for the ability of a country to meet specific needs by setting its own interest rates independently. In its Twenty-Second Annual Review, the Economic Council considered the possibility of having a "made-in-Canada" interest-rate policy by decoupling domestic rates from those which are determined in international markets. The Council concluded that because of the high degree of substitutability between Canadian and U.S. assets, Canada's interest rates are very sensitive to movements in U.S. rates, and it would therefore be difficult to maintain a strictly "made-in-Canada" policy in that area.[21] More generally, as globalization progresses, the ability of domestic authorities to set interest rates independently from those of the rest of the world diminishes.

In the long run, monetary policy regulates the course of inflation, nominal interest rates, and exchange rates. Internationalization has not changed that. In the short run, monetary policy has an impact on the real side of the economy. Globalization weakens that impact and may shorten the period of time over which it takes place. The impact is mainly felt by countries that have been affected only fairly recently by the phenomenon of internationalization. Canada has had an open economy and free cross-border capital flows for many years and adjusted long ago to financial developments abroad.

It is also worth pointing out that the globalization of financial markets has resulted in financial flows becoming the "tail that wags the dog." Exchange rates now tend to move largely in response to capital flows that are not the result of real-sector trade flows or of primary investment flows.[22]

The freedom with which capital can now move internationally suggests that capital markets can adjust very rapidly – much more rapidly than goods markets. For example, a large flow of capital into or out of a country in response to new information on the expected performance of its economy could not be offset by changes in the flows of goods and services. The adjustment must take place in foreign-exchange markets and through changes in interest rates. This divergence between rates of adjustment in goods and capital markets could produce increased volatility in interest and exchange rates.

Discipline in Fiscal Policy

There is a concern that internationalization may have contributed to a lack of discipline in the matching of government spending and revenues. When the possibility of financing public deficits was largely determined by the availability of funds in domestic markets, governments were generally running lower deficits than is the case today. In more recent times, however, they have found it easier to raise money on world markets, and they have been less concerned with crowding private-sector borrowers out of

domestic markets, since the latter have gained increased access to sources of funds overseas.

Indeed, it may appear to some that the world is now able to live with larger imbalances than before the days of accelerated globalization, as the large government deficits of the 1980s have yet to result in a strong resurgence of inflationary pressures, in levels of interest comparable with those of the late 1970s, or in a recession. Even if that assessment is correct, however, complacency would be unwarranted. Once the new opportunities afforded by easier access to foreign sources of capital have been exhausted, there will be nowhere else to go. At that time, the effects of fiscal imbalances will inevitably be felt; and since the size of the imbalances that will need to be corrected will be greater than they would otherwise have been, the necessary adjustments will also have to be larger.

Risks

As financial institutions spread their activities to an ever-increasing number of countries, there is the risk that the difficulties that they encounter in one country will have an impact on others. Associated with this concern is the fact that it becomes more difficult to supervise the operations of so-called "multinational" financial institutions. Also, as financial markets around the world become increasingly more integrated, there is the new risk that a shock originating in one country will be quickly transmitted to others. As investors and borrowers take a more global view of their operations, financial shocks take on a greater international dimension and may have a deeper impact.

The operation of financial markets, either domestic or international, has always involved a degree of risk. The changes that have occurred recently have modified the nature of those risks, however, both for financial institutions themselves and for the financial system as a whole.

For financial institutions, the traditional risks in domestic markets were associated mainly with the creditworthiness of borrowers and with interest-rate fluctuations. Now, however, the institutions are more vulnerable to the possibility that political, legal, or economic factors in the host country may damage their interests. In their foreign operations, they must often rely heavily on funding from large institutional deposits, since they do not normally have the same access to retail deposits in foreign countries as they do in their domestic market. Because these deposits tend to be much more footloose than retail deposits, the institutions face a greater risk of sudden withdrawals in their foreign operations than they do at home. The firm that conducts business in international markets must also deal more heavily in foreign currencies, and that makes it more vulnerable to exchange-rate fluctuations.

For the financial system as a whole, the internationalization of markets has brought about a decline in transparency, as it is more difficult to follow and monitor cross-border flows and obtain information on counterparties in international transactions. Moreover, with the growing integration of financial markets, the effects of an "accident" of local origin can be felt almost instantaneously around the world.

The October 1987 stock market crash is a case in point. While a number of factors common to several countries were at play, the slide originated in the United States. The worldwide collapse that ensued was accelerated – but not caused – by the globalization of financial markets (see Appendix C).

The internationalization of financial markets has led to the more rapid transmission of shocks and a growing lack of transparency. Otherwise, it does not appear to have generated more risks.

The Future Course of Globalization: Three Scenarios

The stock market crash of October 1987 and its impact on other financial markets have highlighted the possibility of a change in the course of internationalization.

In the months immediately following the crash, there were some major changes in financing activity on international markets. First, there was a shift from securitized forms of borrowing back to syndicated loans. Between the third and fourth quarters of 1987, the total value of international bonds issued fell from US$35 billion to US$20.5 billion, while syndicated loans increased from US$14.4 billion to US$31.6 billion over the period; the total for the year was US$82 billion – nearly double the 1986 level. Second, there was a significant drop in equity-related bond issues – from US$18.5 billion to US$3.7 billion between the third and fourth quarters of 1987. Finally, there was a shift away from Euromarkets to domestic markets.

But the events in the months immediately following the October 1987 stock market crash do not appear to mark a retreat from internationalization. The most recent data indicate, for example, that the rapid growth in the Eurobond market is continuing with the total value of Eurobonds issued in 1988 greater than in 1986 and with the US$133.6 billion issued in the first half of 1989 – more than in all of

1985. There has also been a return to equity-related bond issues with US$23.7 billion and US$27.3 billion being issued in the first two quarters of 1989. As we look into the future, three main scenarios seem possible: the complete globalization of markets; a retreat from the present situation to a less open world; and a continuation of internationalization at more or less the same pace.

Full Globalization

For a market to be completely globalized, there must be sufficient activity in that market around the world so that continuous trading can take place, and market makers should have trading facilities in each of the major financial centres. Also, there must be no barriers to trade, and enough information must be available around the world so that traders located in the home market of a specific security will not enjoy a special advantage.

These conditions are just now being met for some products. The foreign-exchange market is the first to achieve complete internationalization: trading in most major currencies now continues on a 24-hour basis.

Trading in U.S. Treasury bonds has also become globalized. The need to finance the ever-rising budgetary deficits were an important factor in this development. Also, since the United States is the world's largest economy and since the decisions made in Washington have a worldwide impact, information on those factors is widely disseminated. Recent improvements in communications technology have made that information instantaneously available around the world. As a result, worldwide market making in Treasury bonds has become a fact of life, and holdings can be modified at any time during the day. The consequent growth of trading activity in U.S. Treasury notes and bonds has been explosive, particularly since 1984, with the largest increases occurring in Japan and the United Kingdom (Table 4-18). (The growth rate of foreign trading in Treasury bonds was much greater than that in the U.S. domestic market.)

The market for U.K. "gilts" (government bonds) is also moving towards full globalization. The internationalization of the equity market is just beginning. Foreign trading activity in U.S. equities has risen in the last few years – from US$75 billion to US$277 billion between 1980 and 1986. But that growth has not been as dramatic as that of trading in Treasury bonds, which grew from US$97 billion to US$2,065 billion over the same period.[23]

There are, however, a number of reasons why complete globalization is unlikely to occur, at least in the foreseeable future. Liquidity, for a security, ultimately rests in its domestic market. For almost all securities, there will not be the same amount of information available in foreign markets as in the home market. U.S. Treasury bonds and notes are traded around the world almost as readily as in the United States, in part because foreign investors do not require large amounts of information in order to be convinced of the safety of these securities.

It is quite a different matter with corporate securities, where credit risk is involved. In that area, proximity to the corporation issuing the securities is critical to the rapid collection of accurate information. Indeed, a major problem with the listing of equities on foreign markets is that firms are better known in their home country and that, as a

Table 4-18

Gross Amount of U.S. Treasury Notes and Bonds, by Country of Trading, 1972-86

	Canada	Japan	Singapore	Switzerland	United Kingdom	West Germany	All foreign
				(Billions of U.S. dollars)			
1972	0.6	3.8	..	--	0.7	..	5.4
1975	0.3	0.3	..	--	1.1	0.3	15.8
1980	1.0	6.6	0.2	1.7	33.0	7.0	97.4
1981	1.7	10.1	2.5	1.2	28.9	12.1	121.8
1982	2.2	12.8	12.1	4.1	37.2	14.2	174.6
1983	6.9	16.5	20.0	5.8	43.8	13.3	254.2
1984	20.7	30.5	36.4	8.7	87.6	25.3	450.7
1985	41.9	172.5	41.1	18.4	187.6	31.0	967.2
1986	57.1	570.8	41.5	50.0	443.9	56.6	2,064.6

SOURCE SIA, "The international market."

consequence, buyers for equities on the secondary market are more readily available there than in the foreign country. In those areas, therefore, full internationalization is unlikely to be achieved.

Retrenchment

According to the second scenario, financial markets would become much more regulated, and capital controls would be instituted by many countries. In time, this would result not only in far greater control of macroeconomic policy by national governments, but also in rising costs of funds for many corporations and a reduction of investment opportunities for portfolio holders.

That scenario is unlikely to unfold, however; barring an economic catastrophe, the process of internationalization has simply gone too far. With all of the experience of corporations and investors on international markets, there would be considerable pressure and incentives to avoid the type of controls envisaged in such a scenario. Capital controls can usually be avoided; in past cases, they have proven to be largely ineffective in achieving their objective.

Besides, many of the factors that led to regulatory changes in a number of markets and to the relaxation of capital controls are still at play today; indeed, they are now even more important than ever.

A Steady Pace

The most likely scenario calls for a continuation of the present trend towards increasing internationalization. There are still many more opportunities to lower the cost of financing by tapping international or foreign markets. Much scope remains for the international diversification of portfolios, particularly for the funds of pension and insurance companies. The penetration of domestic markets by foreign borrowers, investors, and financial institutions is just beginning. Large imbalances in current-account positions are likely to remain for many years to come. Technological progress will most likely continue to lower the costs of dealing abroad and to improve the dissemination of information. There are still many opportunities to bring more investors and borrowers to international markets.

Thus there are good reasons to expect that the globalization of markets will continue, but the pace of progress could well slow over the next few years, for at least two reasons.

First, after the initial rush by financial institutions to position themselves on international and domestic markets as they were opening up, a normal restructuring is now taking place, with many firms withdrawing from those segments of the market which are unprofitable for them and concentrating their efforts and resources in areas where they are enjoying more success.

Second, there remain important institutional barriers to the globalization of markets for many kinds of securities. Liquidity is still found mainly in domestic markets. Differences in prospectus requirements and in accounting procedures also act as barriers to international issues and to cross-border trade in securities. A number of international organizations have worked for over 15 years towards harmonizing standards in those areas. Some progress has been achieved, but much remains to be done.

In addition, clearing and settlements mechanisms vary from country to country: in some countries, settlements take a few days; in others, a few weeks.

Finally, barriers to the cross-border flow of capital or the establishment of foreign institutions in domestic markets continue to exist in some countries.

External shocks and overexpansion in periods of "bull" markets will result in further advances in globalization, with the pace sometimes slowing down, sometimes speeding up. In this context, a rationalization of the financial industry on a worldwide scale is to be expected. Many observers believe that between five and 10 global financial institutions will emerge from this process; the others will find niches of one kind or another, specializing in certain regions or certain instruments.

The internationalization of financial markets has provided overall benefits, particularly to financial institutions and large lenders and borrowers, despite some increase in risk. As the globalization of financial markets progresses, these benefits will be reinforced and possibly dispersed more widely. Nevertheless, many users of financial services – in the retail market, in particular – have not enjoyed such benefits; in some cases, they may have faced increased risk, for instance, by dealing with financial institutions that themselves face increased risk. Providing all users of financial services with the opportunity to enjoy the full benefits flowing from the globalization of financial markets, while at the same time, limiting the risks for individual users as well as for the economy as a whole, is a major challenge for governments and for supervisory bodies.

5 Foreign Institutions in Domestic Markets

The growing internationalization of financial markets in the 1970s and 1980s was marked by a dramatic increase in the share of financial services provided by non-residents and by the penetration of domestic markets by institutions from other countries. It took the form of a rapid increase in the cross-border activities of financial institutions and, more recently, of the rise of multinational corporations with establishments located in many countries. In 1988, for example, the six largest Canadian banks had 558 establishments in over 50 countries, and Canadian securities firms had 57 establishments in 12 countries. In the same year, 57 foreign banks had subsidiaries in Canada, and 44 foreign banking institutions had a representative office.[1]

The wave of internationalization in the 1980s has increased pressures to remove the remaining obstacles to cross-border trade in financial services. In Canada and elsewhere, the last major barriers are found in limits to the "right of establishment" – that is, to the right of the financial institutions of one country to operate in another – and to the range of activities that foreign institutions are allowed to perform in domestic markets.

Three Approaches

When establishing a presence in foreign countries, most financial institutions can choose among three basic forms of organization – a representative office, a branch, or a subsidiary. Regulation in the host or home country may, however, restrict that choice.

Representative offices, designed to enable the institution to make foreign contacts and to gather information, are the most widely permitted form. They do not book loans or deposits but refer business to their home office. A branch is legally a part of the parent institution and an extension of its corporate structure. Foreign branches can book loans and deposits, as well as provide other services normally offered in the home country, so long as such business does not conflict with the laws of the host country. A subsidiary is a domestic institution in the country in which it operates; thus it is subject to the law of that country, not the law of the home country.[2]

Canadian Firms Abroad

Canadian banks, securities firms, and insurance companies have established all three types of operations in other countries since their very early days.

Banks and Trust Companies

In the 19th century, a number of Canadian banks established branches or agencies abroad, often very shortly after they had been created themselves. For the most part, these foreign activities followed closely the pattern of trade links with Britain and its colonies or with the United States. Much of the banking business undertaken by the foreign offices of Canadian banks was related to the financing of commercial trading activity of Canadian enterprises and, in particular, to raising funds for Canadian governments.

The Bank of Montreal, for example, opened an agency in New York in 1818, mainly to finance trade between Canada and the United States. In 1861, that same bank established an office in Chicago to finance the shipment of American wheat via the St. Lawrence River; and less than 10 years later, it opened an agency in London. Other Canadian banks were also active abroad at this time: the London branch of the Canadian Imperial Bank of Commerce was opened in 1867, for example.

By 1959, Canadian banks had opened 156 establishments in foreign countries. The number rose to 421 in 1980 and to 558 in 1988. During the 1980s, the fastest increase has taken place in the United States. Over the same period, there has been a significant decline in the number of establishments in Europe (Table 5-1). There has also been a change in the kinds of establishments operated by Canadian banks in foreign countries – i.e., a shift from direct branches to subsidiaries.

Not surprisingly, the growing physical presence of Canadian banks abroad has been accompanied by an increase in foreign-currency assets and liabilities booked outside Canada (Chart 5-1). Over 90 per cent of loans to non-residents fall into this category, while only 2 per cent of loans to residents are booked abroad. In addition, 31 per cent of the banks' total income in fiscal year 1987 came from business transacted abroad. However, foreign book-

Table 5-1

Number of Establishments of Six Major Canadian Chartered Banks in Foreign Countries, 1965, 1980, and 1988

	1965	1980	1988
United States	26	47	132
Europe	27	99	71
United Kingdom	13	46	39
France	5	11	7
Germany	7	12	9
Others	2	30	16
Caribbean	145	159	218
Bahamas	19	26	44
Barbados	8	10	19
Cayman Islands	1	4	4
Jamaica	62	57	48
U.S. Virgin Islands	3	4	5
Puerto Rico	8	11	33
Dominican Republic	12	13	14
Trinidad and Tobago	22	19	18
Others	10	15	33
Central and South America	54	32	50
Argentina	3	5	4
Belize	5	6	4
Brazil	4	7	32
Guyana	7	2	1
Mexico	1	4	4
Venezuela	7	2	2
Panama	–	5	2
Others	27	1	1
Asia and Pacific Area	4	74	83
Australia	–	19	21
Hong Kong	1	28	30
Japan	3	5	7
Singapore	–	8	8
Others	–	14	17
Africa and Middle East	–	10	4
Bahrain	–	2	1
Egypt	–	1	1
Lebanon	–	3	2
United Arab Emirates	–	3	1
Others	–	1	–
Total	256	421	558
Of which:			
Branches	207	189	148
Agencies and representative offices	41	80	52
Subsidiaries and affiliates	8	152	358

SOURCE P. Nagy, *The International Business of Canadian Banks*, Centre for International Business Studies (Montréal: École des Hautes Études Commerciales, 1983, pp. 54 and 55), 1965 only; and estimates by the Economic Council of Canada, based on data from the major chartered banks.

ings underestimate the activities undertaken by Canadian banks through foreign establishments, since bookings refer only to assets and liabilities, and not to other activities. Although Canadian banks were prevented from participating fully in securities trading and underwriting in Canada until 1987, they had been free to do so in many countries; these activities, which constituted an important part of their foreign business, are not classed as bookings.

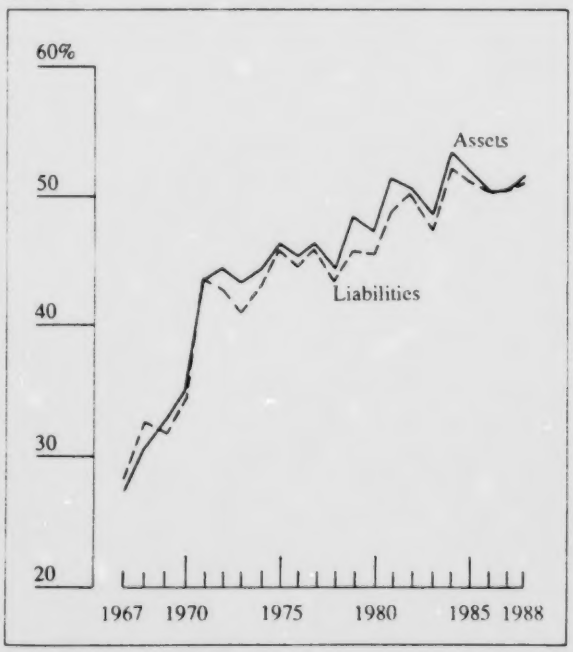
Although operating under different legislation and with different powers, Canada's trust companies are viewed abroad as banks with fiduciary powers, in much the same way as some U.S. and Japanese banks. In 1987, only one Canadian trust company had branches abroad. More recently, other Canadian trust companies have purchased institutions in the United States, but their presence on international markets is generally dwarfed by that of the banks.

Securities Firms

Securities dealers, which began operations somewhat later than the banks, also set up offices abroad at a much later date. Trading in Canadian securities was initially

Chart 5-1

Proportion of Foreign-Currency Assets and Liabilities of Canadian Banks Booked Abroad, 1967-88



SOURCE *Bank of Canada Review*, various issues.

dominated by the banks. In the early part of this century, there were many securities dealers active in Canada, but they normally conducted their overseas business through correspondence relationships with foreign firms. Dominion Securities established an office in London in 1905; Merrill Lynch Canada (the Canadian subsidiary of a U.S. firm) followed suit in 1908; and Wood Gundy opened its London office two years later. By 1970, Canadian securities dealers had 37 offices outside the country; of these, 30 belonged to 14 of the largest firms. By 1988, the number of foreign offices had risen to 57.

According to a 1984 survey by the Investment Dealers Association, 10 members that had affiliates or agencies abroad received an average of 9 per cent of their revenue from this source. Thus, compared with the banks, the overseas business of Canadian securities dealers accounted for a much smaller proportion of their total business.

Insurance Companies

The first Canadian life insurance company started operations in 1847; by 1885, there were 10 firms in the industry. Shortly thereafter, several of these companies expanded into foreign markets. After the Second World War, many countries imposed restrictions – which are still in place – on the operations of foreign insurance companies. Entry into the United States and the United Kingdom remained quite free, however. By 1987, nearly 45 per cent of the total premium income of Canadian life insurance companies came from abroad.

Foreign Institutions in Canada

In several areas of financial activity, the entry of foreign firms into Canada is a rather recent occurrence. While foreign insurance companies were allowed to enter Canada's domestic market a long time ago, the history of banks and investment dealers has been marked by a period of freedom of entry, followed by severe restrictions; only very recently has there been a return to easier entry conditions.

Life Insurance Companies

The first insurance companies operating in Canada were British and U.S. firms. Foreign companies have always outnumbered Canadian firms, at least among the companies registered at the federal level.[3] Since 1885, however, the amount of net insurance in force with foreign companies has been smaller than that with domestic firms. At the end of 1987, of the 165 life insurance companies operating in Canada, 77 were Canadian-owned, 67 were U.S.-owned, 10 were British, and 11 were from other European countries.[4] That year, 82.6 per cent of the 898 billion dollars' worth of life insurance owned by Canadians was held in policies underwritten by Canadian firms.

Banks

The first foreign bank to operate in Canada was Barclays Bank, which opened an office in Montreal in 1928. It was joined, more than 20 years later, by two Swiss banks and a Dutch bank.

Initially, the European banks with offices in Canada focused their activities on the acquisition of portfolio investments by European investors. Even as late as the beginning of the 1960s, the presence of foreign banks in Canada was at best marginal. Moreover, in 1966, 89 per cent of the shares of all banks (both foreign- and Canadian-owned) were held by Canadians even though, until 1967, the Bank Act placed no limit on the foreign ownership of Canadian banks.

This was a period when a Canadian bank could not take over another Canadian bank, even though no law prevented a foreign bank from acquiring partial or total control of a Canadian bank, provided the approval of the Minister of Finance had been secured beforehand. After the purchase, in 1963, of the Mercantile Bank (one of the European banks established in Canada) by the First National City Bank of New York (now Citibank), the Bank Act was revised in 1967 to restrict access to the domestic Canadian market by foreign banks. It was feared that the entry of a large U.S. bank might result in an unacceptably large share of the Canadian retail-banking market being placed under the control of a large U.S.-based bank. During this period, foreign direct investment in Canada, particularly by U.S. residents, raised much concern about the ability of Canadians to control their own destiny. The Bank Act of 1967 was based on the principle that Canadian control of the banking industry was a sound and desirable objective. It provided that no single shareholder could own more than 10 per cent of the shares of a bank and that non-residents could, in the aggregate, own no more than 25 per cent.[5] While these measures were not retroactive, the growth of a bank that did not meet the restrictions was limited. After the passing of this legislation, Citibank gradually gave up its control of the Mercantile Bank; by 1975, it had reduced its holding of outstanding common shares to 24.2 per cent. The Mercantile Bank was purchased by the National Bank of Canada in 1986.

While the Bank Act of 1967 prevented foreign banks from fully participating in the domestic Canadian market, it allowed them to incorporate affiliates at either the provincial or the federal level, provided that these subsidiaries did not call themselves banks and did not accept deposits transferable by cheque. Thus, during the period 1967-80, the foreign banks increased their participation in the Canadian market, largely through their provincially chartered affiliates.

In the early 1970s, the Canadian market was attractive for foreign banks because of strong growth in the economy, a buoyant demand for funds (particularly in the areas of energy and natural resources), and a stable political climate. By 1976, 60 foreign banks, of which about one half were from the United States, had equity interests in some 120 Canadian affiliates that were engaged mainly in money-market activity and commercial lending. In addition, there were more than 40 representative offices of foreign banks in Canada.

These affiliates experienced a compound annual rate of asset growth about twice that of the Canadian assets of chartered banks from 1974 to 1981 (Table 5-2). Their target market was that of large loans – in the range of $2 million to $8 million.[6] They could provide a number of financial services, such as financial leasing and factoring, that Canadian banks could not offer. Contrary to rules governing the chartered banks, they were not subject to reserve requirements, as were the chartered banks. In that respect, the foreign-bank affiliates had a competitive advantage over the Canadian-owned banks. Since they could not accept deposits payable by cheque, however, they had to finance their activities by other, more costly means (mainly by issuing commercial paper); but their borrowing could be guaranteed by their parent bank.

Table 5-2

Assets of Canadian Affiliates[1] of Foreign Banks and Canadian Assets of Chartered Banks, 1974-81[2]

	Canadian affiliates of foreign banks	Chartered banks
	(Millions of dollars)	
1974	1,596[3]	68,481
1975	1,823	77,169
1976	2,090	88,790
1977	2,837	102,819
1978	3,725	122,128
1979	5,164	147,574
1980	8,579	171,296
1981	11,010[4]	184,999

1 Financial firms established under a federal or provincial law and for which the majority of shares belong to foreign banks. The figures do not include data on the representative offices of foreign banks or other institutions affiliated with foreign banks whose business loans or money-market activities are not their primary line of business.
2 After August 1981, foreign-bank affiliates became Schedule B banks, and the data pertaining to them are therefore not directly comparable with the pre-August figures.
3 June-December average.
4 January-July average.
SOURCE *Bank of Canada Review*, various issues.

Recognizing the benefits to competition of having foreign participation in the banking industry, the 1980 revisions to the Bank Act were aimed at bringing the affiliates of foreign banks under the control of the Canadian regulatory authorities. This was done by establishing a new category of banks – listed under Schedule B of the act. Following the adoption of the proposed revisions, many foreign banks formed Canadian subsidiaries and transferred their Canadian business to them.

Before the Canada-U.S. Free-Trade Agreement, the assets of all foreign-owned banks could not exceed a specified limit. At the time of the signing of the agreement, the limit was 16 per cent of the Canadian assets of all banks operating in Canada. In addition, these subsidiaries could not open more than one branch in this country without the approval of the federal government. (Historically, such approval has never been denied.) The free-trade agreement, however, exempts U.S. banks, individually and collectively, from the ceiling on asset growth. In the case of the subsidiaries of non-U.S. banks, that ceiling has been lowered to 12 per cent of the Canadian assets of all banks operating in Canada. U.S. banks have also been exempted from the need to seek prior approval in opening new branches, and U.S. residents have been exempted from the 25-per-cent limit on collective ownership of Canadian banks.

Besides being subject to a limit on assets and requiring the approval of the Minister of Finance to open more than one branch, a foreign-owned subsidiary must demonstrate to the minister the good reputation of its parent bank and must convince him of its commitment to promote competition in Canada. The minister must also be assured that the conditions under which Canadian banks can enter the domestic market of the parent of the foreign-owned subsidiary are as favourable as those under which the latter is allowed into Canada – or that they will be so in the foreseeable future.

In order to avoid conflicts of interest, the parent of a Schedule B bank may own another affiliate in Canada only

if the latter is engaged in those activities which the subsidiaries of Canadian banks are allowed to perform. In addition, the Canadian subsidiaries of foreign banks must finance at least half of their Canadian-dollar assets through Canadian-dollar borrowings. The object of this requirement is to enable the Bank of Canada to exercise control over foreign-exchange movements. As previously, foreign banks may establish representative offices, but the offices must be registered with the Superintendent of Financial Institutions and may only refer business to their parent banks or collect information on potential clients. Foreign banks wishing to operate in Canada must establish a subsidiary, which may then, with prior ministerial approval, open branches.

Foreign banks may also retain their nonbank affiliates, again provided they do not offer deposits transferable by cheque and provided they cease to offer financial leasing or factoring services. In addition, the subsidiaries of foreign banks are prohibited from obtaining a guarantee from their parent bank on their borrowings. This measure considerably reduces their ability to compete, because these guarantees were one of the main advantages that foreign-bank subsidiaries enjoyed in comparison with chartered banks.

By the end of 1983, there were 58 foreign-bank subsidiaries in Canada, with assets amounting to 7 per cent of all domestic assets of Canadian banks. By 1988, the number of subsidiaries had remained substantially the same, but the proportion of their assets had risen to about 11 per cent; they had a total of 268 branches in this country. In 1988, the largest group of foreign banks was from the United States; in recent years, however, the share of total assets held by U.S.-owned subsidiaries has been declining (Table 5-3).

Securities Firms

The ownership of securities firms in Canada by foreign residents was not a serious political issue before 1969. The industry was dominated by Canadian firms. In 1927, for example, five Canadian-owned securities dealers and the Bank of Montreal accounted for 60 per cent of all securities underwritten; four decades later, foreign-controlled firms earned only some 11 per cent of total commissions on security trading in Canada. Of the 182 securities firms that were registered on the Toronto, Montreal, or Vancouver Stock Exchanges at the beginning of the 1970s, about 15 were under foreign (mainly U.S.) control. Another 100 firms or so (including about 10 that were foreign-controlled) were not registered on any stock exchange.

In 1969, Royal Securities was acquired by Merrill Lynch, a U.S.-based firm. At that time, the undercapitalization of securities firms in Ontario was generally not considered as a major concern. But there was fear of growing foreign control of the securities industry, at least in Ontario. Following the report of the Moore Committee in 1970 and the Joint Industry Committee's position paper in 1971, regulations were introduced in Ontario, establishing a ceiling of 10 per cent on the portion of the shares of a securities firm that a single non-resident and its associates and affiliates could hold, and a ceiling of 25 per cent on the portion that all

Table 5-3

Subsidiaries of Foreign Banks in Canada, 1983 and 1988

	Number		Proportion		Distribution of assets	
	1983	1988	1983	1988	1983	1988
			(Per cent)			
Country or region of origin:						
United States	20	15	34.5	26.3	45.8	26.7
United Kingdom	6	4	10.3	7.0	14.4	21.0
Japan	7	11	12.1	19.3	9.7	12.5
Continental Europe	16	16[1]	27.6	28.1	25.4	28.1
Rest of world	9	11[2]	15.5	19.3	4.8	11.6
Total	58	57	100.0	100.0	100.0	100.0

1 Includes five subsidiaries from France, three from Switzerland, two from West Germany and Italy, and one each from the Netherlands, Luxembourg, Spain, and Greece.

2 Includes three subsidiaries from Israel, two from Korea and Singapore, and one each from Hong Kong, India, Australia, and Taiwan.

SOURCE Canadian Bankers' Association, *Financial Statistics* (*Foreign Bank Subsidiaries*), Toronto, January 1989.

non-residents could own. Existing firms owned by non-residents that did not meet the new criteria were "grandfathered." In 1974, the "grandfathered" firms were limited to a rate of growth of assets that could not exceed the average rate for major Ontario securities firms. Foreign-owned firms could, however, operate without restriction in the exempt market.

In Quebec, the Bouchard Report (1972), written in the wake of the turmoil in the Ontario securities industry, recommended that the Quebec securities market remain open to foreigners.[7] Contrary to the prevailing opinion in Ontario, it was felt that foreign participation would reinforce the capitalization of the Quebec securities industry. In 1973, the government of Quebec decided not to impose any restrictions on the entry of foreign securities firms into the province or on foreign participation in existing securities firms. In 1983, the *Commission des valeurs mobilières du Québec* (the provincial securities commission) ordered the Montreal Exchange to remove its restrictions on membership by foreign participants.

With the internationalization of financial markets, the need for the highly protected Ontario securities industry to become more competitive and to increase its capitalization led to the opening-up of that industry. Since June 1987, Canadian banks, insurance companies, and trust companies have been allowed to own up to 100 per cent of a Canadian securities firm. Also, beginning in June 1987, foreigners were allowed to acquire up to 50 per cent of the capital stock of a Canadian securities firm registered in Ontario; in June 1988, that limit was eliminated. A foreign firm may now enter all areas of securities transactions in Ontario upon registration as a foreign dealer.[8] A foreign securities firm may be refused entry, however, if its home country does not allow the unfettered establishment of Canadian firms in its home market. In addition, all foreign firms must now register with the securities commission, since the exempt market in Ontario has been eliminated. Since July 1987, foreign institutions have purchased part or all of five Ontario securities firms. Several other foreign firms – from Japan, in particular – have established subsidiaries in Ontario and have acquired a seat on the Toronto Stock Exchange.

Venturing Abroad

The globalization of financial markets and the lowering of barriers to cross-border capital flows and to foreign direct investment in the financial area has expanded the opportunities for financial institutions to increase returns to their shareholders by venturing into foreign countries. At the same time, the institutions have been challenged at home by the entry of foreign firms and by the ability of many of their customers to find financing abroad. To take advantage of the new opportunities and to continue to meet their customers' financing needs, many institutions have developed strategies for expanding outward that were based on what they believed to be their natural advantages, on how best to meet competition, and on an assessment of the costs involved.

In developing a strategy aimed at foreign markets, the financial institution must first decide what products and services it wishes to offer and which customers it wishes to target. Naturally, that strategy will be determined, in part, by the nature of the institution's business, and it will be a major factor in determining the kind of establishment to set up abroad.

From that point of view, insurance companies are quite different from banks or securities firms: their main line of business is selling life insurance policies and annuities to retail customers. They may enter the wholesale market on the asset side, but as buyers of large blocks of assets rather than as arrangers of deals. Thus the range of possibilities open to them is somewhat limited.

The possibilities open to banks and securities dealers cover a much broader range. The institution may choose to concentrate on the needs of its domestic customers for external financing and to abstain from any involvement in the national markets of foreign countries. Alternatively, it may offer a full line of banking and securities products and services to both the retail and corporate markets in foreign countries, provided local regulations allow it. Or it may specialize in a specific area, such as retail or wholesale banking, securities dealing, investment banking, and so on.

At present, very few financial corporations aim at building a global financial-services company. In fact, the foreign operations of most financial institutions are quite limited. Some firms that do have extensive foreign operations seek to offer both wholesale and retail products, but most of them limit their activities to the wholesale market.

It is difficult for foreign institutions to penetrate retail markets because of the stiff competition that they encounter from domestic institutions, which are more familiar with the local markets and have distribution systems in place. This is particularly true in retail banking in Canada, where the Schedule A banks have extensive branch networks. There are exceptions, of course – institutions that have been operating in a particular country for a long time and that have been able to develop distribution networks (Merrill Lynch

Canada, for example). Some institutions, such as the Hongkong Bank of Canada and Lloyds Bank of Canada, have been able to acquire a distribution network in Canada through the purchase of Schedule A banks with branch systems.

With respect to the range of customers targeted in their foreign operations, there is a significant difference between the approach of the Canadian banks and that of some large U.S., U.K., French, West German, and Swiss banks and securities firms. The latter see themselves as truly international, serving customers in many countries. As for most Japanese banking and securities firms, their current strategy is either to market Japanese securities or to purchase foreign securities for their own customers in Japan. But that stance could change: Japanese banks are becoming more aggressive in their attempts to provide services to foreign firms as they become more familiar with foreign markets.

What Kind of Establishment?

The form of organization chosen by a firm establishing operations abroad depends on the type of activities that the foreign establishment is intended to perform and on the overall strategy of the institution. As a representative office acts more as a contact point in the country, the choice facing most financial institutions seeking to expand their operations is usually between a branch and a subsidiary.

With respect to those functions that financial institutions are permitted to perform abroad by the laws of their own country, most institutions would undoubtedly prefer to open a branch rather than a subsidiary, because branches are more flexible and less costly, and because they enable the parent to exercise direct control.[9] In those cases where the size of loans is restricted by the capital available to the institution, a branch has more scope, since it has access to the parent firm's resources. Moreover, customers often feel that in doing business with the local branch of a foreign firm, they are in fact dealing with the parent institution and benefiting from its full technical and financial backing. Some host countries require no more than that the parent have a minimum capital base and supervise its branches adequately; where capital-equivalence deposits are required from branches, however, the advantage of this form of establishment vanishes.

A branch is a less desirable form of organization if the regulations of the home country, particularly with respect to powers, tend to limit the participation of the branch in the activities that institutions in the host country are allowed to perform. For example, the branch of a U.S. bank located in the United Kingdom or West Germany may not act as an underwriter for corporate securities, since that type of activity is prohibited by U.S. law. In such cases, a subsidiary can perform functions that are forbidden to branches. In London, the subsidiaries of Canadian and U.S. banks have, for many years, operated as securities dealers and underwriters for debt and equity issues, even though the banks were prevented from conducting such business in their home markets.

From the point of view of the supervisory authorities in the host country, a subsidiary is the preferred form of organization, because regulators have more direct control over its operations. Because it has the status of a domestic institution in the host country, the subsidiary is subject to the latter's full supervisory and regulatory requirements, like any other domestic institution.[10]

A subsidiary is also more immune than a branch from the financial difficulties experienced by the parent. Should the latter experience financial failure, for example, the liabilities booked in its foreign branches would normally be treated in the same way as all its other liabilities. Since a subsidiary is an independent entity, with respect to its assets and liabilities, the failure of the parent bank would not necessarily result in the downfall of the subsidiary.

For those reasons, Canada does not allow foreign banks to establish branches. While most other countries do allow such branches, in many cases the latter are subject to at least some controls by the host country's authorities, such as reserve requirements on deposits.

In the end, the choice between a representative office, a branch, or a subsidiary – when it is not predetermined by regulation – cannot be dissociated from the decision to expand operations to foreign countries. Both decisions depend mainly on cost considerations – i.e., on transaction, information, regulation, and taxation costs.

Transaction Costs

If a financial institution wishes to operate in the retail market of a foreign country, it must establish at least a distribution network, and possibly also some production facilities, in that country. While the institution could provide certain corporate banking services – such as investment banking and the floating of issues – from the home market, having a base of operations in London or New York will enable it to offer better services by exposing those issues to the broader international market.

The institution could also serve the international needs of its domestic customers through a network of correspondent

banks already established in foreign countries. That would only be a second-best solution, however, as the institution would have no direct control over the quality of the service offered by the correspondent bank and might run the risk of losing business to that institution.

Information Costs

The establishment of a branch, subsidiary, or representative office abroad enables the financial institution to acquire timely information that might otherwise be more costly or, in some cases, even impossible to obtain. In interviews with bankers in Canada and abroad, it was emphasized that the acquisition of information was viewed as a major cost to overcome and one of the major reasons for opening an establishment in foreign countries.

Representatives of foreign banks in Canada pointed out that it was essential to be established here to obtain adequate information on Canadian corporations in order to assess the risks involved in lending and the correct interest rate to charge. The establishment of an office in a foreign market also helps the institution to become familiar with the usages and customs of the host country.

Regulation Costs

Controls on the free flow of capital between nations and other forms of regulation can create incentives for financial institutions to locate abroad. The controls imposed by the United States from 1965 to 1974, which limited the amounts that could be loaned by financial institutions in the United States to foreign firms or to the foreign divisions of U.S. multinational firms, were one of the reasons for the overseas expansion of U.S. banks during the 1970s. Their foreign establishments could raise funds abroad and lend to whomever they wished, without limits.

Similarly, as Canadian banks were prevented, until 1987, from underwriting corporate securities issues in Canada, they decided to open offices overseas, particularly in London, where they could underwrite issues for their Canadian corporate customers and thus cater fully to their needs.

Taxation Costs

The taxation of financial institutions can provide incentives for some of them to establish offices abroad. Financial institutions are generally subject to income, real estate, and other business taxes. By placing business in branches or affiliates located in jurisdictions with lower taxes, the institutions can lower their business and real-estate tax liability and defer payment of income taxes. Banks have been prompt to locate establishments in the so-called "tax havens" (the Bahamas, the Cayman Islands, Luxembourg, and so on), which have very low or no income or business tax.

In order to counter the flight of business to foreign tax havens, some countries have set up internal tax havens of their own, in which domestic banks can provide banking facilities for certain types of international business in a reduced-tax environment. International banking facilities in the United States and "offshore" banking facilities in Japan are examples. In Canada, the Income Tax Act has been revised to designate Vancouver and Montreal as international banking centres.

The concept of an international banking centre differs from one country to another. Even within Canada, there are differences between the federal and provincial approaches.

According to current federal legislation, deposit-taking institutions in Montreal and Vancouver may accept deposits from, and make loans to, non-residents without paying federal income tax on the profits from those transactions. Profits from investment dealing, letters of credit, and currency transactions remain taxable, however, and loan-related losses are not deductible.

The governments of Quebec and British Columbia have broadened the concept of an international financial centre, relative to the federal approach. Under the Quebec legislation, there is no provincial tax on capital gains, corporate profits, or some employee income related to international financial transactions done in Montreal. In addition to trading in securities, a firm operating within the scope of the international financial centre in Montreal may underwrite securities for a foreign entity or for a Canadian corporation if the securities are issued to non-residents; manage portfolios for non-residents; accept and issue letters of credit for non-residents if the goods are not exported to, or imported from, Canada; execute foreign-exchange transactions; and finance projects outside Canada. Under the B.C. legislation, in addition to those activities permitted in Montreal, a firm may offer a number of other services to non-residents, such as trustee services, insurance, factoring, and financial leasing.

The withholding tax imposed on interest payments is, however, a much more important consideration in determining where international deposits and loans will be booked. Most of Canada's bilateral tax treaties contain a provision

for a 15-per-cent withholding tax. Interest on term loans of less than five years, on interbank loans, and on loans to governments and public-sector organizations is not currently subject to this tax.

Interest on Canadian-currency deposits in Canadian banks is subject to the 15-per-cent withholding tax, but this is generally not a serious constraint when the home country of the depositing institution allows a tax credit equal to the Canadian withholding tax. The problem arises for Canadian banks making loans to foreigners. Because of the way the tax credit on the withholding tax works, the bank may have to book the loan in a location it would not have otherwise chosen, or it may have to register an abnormally low return on the loan (see box).

This aspect of the tax law encourages banks to book loans to foreigners in their foreign branches or subsidiaries. Similarly, if foreign banks wish to avoid withholding taxes on their loans to Canadians, they must establish a branch or a subsidiary in this country. If the tax treaties were renegotiated to eliminate withholding taxes, that incentive to establish branches or subsidiaries abroad would disappear, and the domestic economy would benefit from the added business.

The Impact of Foreign Entry . . .

There are both costs and benefits associated with the establishment of foreign financial institutions in domestic markets. Many countries have opened their doors to foreign institutions because they believe that the benefits outweigh the costs. The impact of foreign institutions on the host country must be assessed from the point of view of the institutions themselves, of the users of financial services, and of the economy as a whole.

. . . *on Financial Institutions*

Financial institutions benefit from the decision to establish offices in foreign countries, because it gives them an opportunity to increase their business. It may also reduce the costs of intercountry diversification of their assets and sources of funds, thus bringing additional benefits. Naturally, it costs more to conduct a market analysis from a distant home country than from the targeted market itself. Nevertheless, penetrating foreign markets is no guarantee of profitability. In fact, a number of institutions that established operations themselves in foreign markets have encountered financial difficulties and have had to curtail their activities.

Within Canada, the performance of the Canadian subsidiaries of foreign banks, when measured by their return on assets or on equity, is inferior, on average, to that of Schedule A banks; however, the return for the 10 best-performing subsidiaries is higher than the average for the domestic banks (Table 5-4). In fact, the four best-performing banks in Canada are foreign-owned subsidiaries. While a higher rate of return may be an indication of better cost performance, it may also signal that the bank has undertaken a more-risky line of business.

The Impact of the Withholding Tax on Loan Bookings

Suppose, for example, that a Canadian bank makes a loan of $100,000 to a U.S. resident at a rate of interest of 10 per cent and that the loan is booked in Canada. The annual interest received by the bank would be $8,500 ($10,000 less a $1,500 withholding tax imposed by the United States). The bank would receive a Canadian tax credit for up to the amount of the withholding tax paid to the United States. However, the tax credits received for withholding tax paid to a foreign country cannot be greater than the Canadian income tax payable with respect to income received from that country, nor can they be carried over to another year. The income tax is payable on net income, which is calculated by first deducting from the interest received (the $8,500 in the above example) the cost of funds to finance the loan (interest on deposits, for example) and the operating costs, and then adding other income (fee income, for example). The tax paid on this net income may well be less than the withholding tax paid on gross interest. Thus the bank would be paying higher taxes on the loan than would a U.S. bank if it undertook the same transaction, and it would have to register a loss or an abnormally low rate of return with respect to that loan.

If a Canadian bank wishes to lend to a U.S. resident and to avoid the withholding tax, it can book the loan in a branch or subsidiary in the United States or in a country such as the United Kingdom that has signed a treaty with the United States eliminating withholding taxes. The bank can also book the loan in a country from which it has sufficient income from other sources, such as loans not subject to withholding taxes, so that the tax credit with respect to withholding taxes will be equal to the withholding taxes paid. For example, if a bank books a loan to a U.S. resident in France and if the bank has sufficient other income from that country, then the tax credits for the withholding tax paid to the United States would be treated as if they were paid to France, and the tax credit would be limited by the proportion of income coming from France, and not just from the United States.

Another measure of bank performance, the banking margin – total interest revenue minus total interest expenses, divided by average assets – is higher, on average, for the foreign-bank subsidiaries than for the Schedule A banks. Since the difference between the banking margin and the rate of return is made up of operating costs and taxes, this result indicates that the operating cost per dollar of assets is, on average, lower for foreign-bank subsidiaries than for

Table 5-4

Profitability of Domestic Banks and Foreign-Bank Subsidiaries, Canada, 1988

		Return on average assets			Return on average shareholders' equity
		(Per cent)			(Per cent)
Domestic Banks:					
1	Toronto-Dominion Bank	1.17	1	Toronto-Dominion Bank	18.49
2	National Bank of Canada	0.74	2	Bank of Nova Scotia	16.91
3	Bank of Nova Scotia	0.69	3	Bank of Montreal	15.27
4	Bank of Montreal	0.68	4	National Bank of Canada	15.12
5	Royal Bank of Canada	0.67	5	Royal Bank of Canada	15.07
6	Canadian Imperial Bank of Commerce	0.65	6	Canadian Imperial Bank of Commerce	13.34
7	Laurentian Bank	0.51	7	Laurentian Bank	8.42
8	Canadian Western Bank	–2.53	8	Canadian Western Bank	–12.93
	All domestic banks	0.74			15.45
Foreign banks:					
Highest level					
1	Standard Chartered Bank	4.56	1	Hanil Bank	32.76
2	Hanil Bank	3.48	2	Standard Chartered Bank	25.93
3	Chemical Bank	1.59	3	Société Générale	21.61
4	BT Bank	1.27	4	Chemical Bank	18.65
5	Société Générale	1.16	5	Republic National Bank of New York	18.33
6	Bank of Boston	1.09	6	Bank of Boston	16.08
7	Korea Exchange Bank	1.03	7	BT Bank	15.75
8	Republic National Bank of New York	0.95	8	Korea Exchange Bank	14.12
9	Manufacturers Hanover Bank	0.93	9	Manufacturers Hanover Bank	12.85
10	State Bank of India	0.83	10	Citibank	11.01
Lowest level					
1	Overseas Union Bank of Singapore	–6.27	1	Morgan Bank	–17.93
2	Morgan Bank	–0.91	2	Overseas Union Bank of Singapore	–17.06
3	United Overseas Bank	–0.36	3	The Chase Manhattan Bank	–3.06
4	The Chase Manhattan Bank	–0.18	4	United Overseas Bank	–1.21
5	Banco Central	–0.13	5	Banco Central	–1.02
6	Lloyds Bank	0.04	6	The First National Bank of Chicago	0.62
7	Daiwa Bank	0.05	7	Lloyds Bank	0.73
8	The First National Bank of Chicago	0.06	8	Daiwa Bank	0.92
9	Taiyo Kobe Bank	0.06	9	Taiyo Kobe Bank	1.02
10	Union Bank of Switzerland	0.09	10	Security Pacific Bank	1.16
	All foreign banks	0.39			6.22

SOURCE Price Waterhouse, *Canadian Banks, 1988 Survey of Results*.

Schedule A banks, assuming that the rate of taxation is about the same for each class of bank. However, the foreign-bank subsidiaries and the Schedule A banks are not strictly operating in the same markets, and thus the lower operating costs of the former need not indicate a better performance than that of the latter. The Schedule A banks have access to lower-cost retail deposits, but in order to accept such deposits, they must maintain their expensive branch networks. The foreign-owned subsidiaries obtain most of their funds in the form of higher-cost wholesale deposits, which may account for their relatively lower return on assets despite their lower operating costs.

The analysis of the financial results of subsidiaries of foreign institutions does not take into account the share of business that is generated in the country of operation but booked with the parent company. For example, Canadian commercial firms may, because of their relationship with the subsidiaries of a foreign bank, use the services of the parent company to issue debt or equity on international financial markets. Since the distribution system of the parent and its affiliates around the world is placed at the disposal of the customer, with the actual transaction taking place anywhere in the world and with income being attributed where the booking is made, the benefits to the parent company go well beyond the reported profitability of the subsidiary. From a Canadian perspective, access to foreign markets by Canadian financial institutions could be very important. In many cases that access may only be secured by granting entry of foreign institutions into Canada.

. . . *on the Users of Financial Services*

While the establishment of foreign institutions in the domestic market may have a marginal impact on capital flows, the analysis that follows focuses on the direct impact on the conditions for efficiency in the financial system: competition, confidence, and accessibility.

Competition in the Banking Sector

In the wholesale market, competition is on a worldwide basis. Financial institutions must offer their services at a price that is determined in world capital markets. In the retail market, competition is among institutions that operate in the domestic economy. It is entirely possible that financial institutions facing international competition in the wholesale market operate in a less competitive fashion in the domestic retail market.

The impact of the entry of foreign banks depends on the degree of competition in domestic markets themselves and on the specific segments of the market that are targeted. The presence of foreign banks can affect the competitive environment in two different ways.

First, it can change the structure of the market or directly influence the way other banks operate. If foreign banks possess a comparative advantage, that puts pressure on domestic institutions to become more competitive. The entry of foreign banks not only reduces the costs of services, but it also challenges the domestic institutions to match their performance.

Second, the entry of foreign banks can increase efficiency in an already competitive environment if the newcomers introduce new techniques and strategies. For example, the rapid expansion of foreign banks in the U.S. business-loan market resulted in a reduction of the spreads between borrowing and lending rates and, in particular, in the use of the Eurodollar rate for determining the lending rate.[11]

The bankers' acceptance market provides an example of the impact of foreign entry on Canadian domestic markets. While bankers' acceptances were introduced into Canada by a domestic bank during the 1960s, these instruments were mainly linked to trade financing, and interest rates on commercial loans were set in relation to the prime rate. In the 1970s, the subsidiaries of foreign banks began to offer instruments with interest rates that, being linked to the cost of their funds, were often lower than those offered by the chartered banks. The latter reacted by popularizing bankers' acceptances as an alternative to traditional loans. After 1980, foreign banks offered bankers' acceptances with fees lower than those of Canadian banks. Thanks to this competitive interaction between foreign and Canadian banks, some borrowers were able to secure short-term funds at rates below the prime.

Foreign banks have also contributed to an increased supply of funds for middle-sized borrowers, although the majority of them do not formally target that market. Among the foreign-bank subsidiaries surveyed by the Council, 52 per cent stated that they geared their business mainly towards the 500 largest enterprises in Canada; 44 per cent indicated that they targeted medium-sized firms. Only 15 per cent of the subsidiaries – mainly smaller banks – said that they targeted small firms.

In 1985, more than half of the business-loan portfolio of foreign banks consisted of commitments in the range between $5 million and $25 million, whereas the average for all banks in Canada was 19 per cent. The most important category of loans for domestic banks were those below $1 million and those above $50 million (Table 5-5). The relatively smaller capital base of many Schedule B banks

Table 5-5

Lending by Canadian Banks, by Size of Loans, 1985

	All banks[1]	Schedule B banks[2]
	(Per cent)	
Less than $1 million	35.9	9.7
From $1 million to $5 million	17.3	21.6
From $5 million to $25 million	18.8	56.6
From $25 million to $50 million	5.9	9.7
Over $50 million	22.1	2.4
Total	100.0	100.0

1 Business loans only. The data pertain to the fourth quarter.
2 All loans; business loans represent over 70 per cent of the total. The data pertain to the end of October.
SOURCE *Bank of Canada Review*; and H.B.W. Metcalfe, *Foreign Banks in Canada, Strategic Directions Towards 1990* (Toronto: Bay Research Associates Inc., 1986).

effectively limits the size of loans that they can provide. In December 1988, only 22 foreign banks were authorized to make loans greater than $25 million, and only five of those could make loans greater than $50 million.

But the constraints on loan size do not restrict the size of the firms that foreign banks may serve. They could be making small loans to large firms, and they do aim much of their business at larger corporations. Regulations do, however, encourage them to serve smaller firms. The granting of an increase in the authorized capital of foreign banks is often conditional upon their being present in the middle market.

In addition, compared with the Schedule A banks, foreign-bank subsidiaries provide more loans to commercial enterprises and non-residents, and fewer loans to individuals. Their participation in the mortgage market is also very small. On the deposit side, they concentrate on the large accounts of domestic and foreign corporations rather than on retail deposits (Table 5-6).

Foreign banks have also brought to Canada new techniques and products. In the Council's survey of foreign-bank subsidiaries, 15 of 27 representatives interviewed claimed to have introduced such innovations to the Canadian market. Swaps – undoubtedly one of the most significant new financial instruments – were popularized in Canada by the foreign-bank subsidiaries. Foreign banks also played a role in the introduction of forward rate agreements and mortgage-backed securities.

According to the Council's survey of nonfinancial companies, 31 of the 74 firms that dealt with foreign-bank subsidiaries used innovative products supplied by the latter. As mentioned above, however, the customers of Schedule B banks are generally larger corporations that are already familiar with the many innovations available on financial markets. Nevertheless, evidence from other countries also points to the competitive introduction of new products by foreign institutions. In the United Kingdom, for example, it

Table 5-6

Selected Balance-Sheet Items of the Chartered Banks as a Proportion of Total Assets Booked in Canada, Second Quarter 1988

	Chartered banks	
	Schedule A	Schedule B
	(Per cent)	
Assets:		
Deposits with other banks[1]	4.6	14.4
Investments	9.2	8.3
In Canada	4.4	0.9
Outside Canada	43.6	51.1
Loans to Canadian residents		
Individuals	15.3	4.2
Businesses	24.2	40.5
Loans to non-residents	3.0	4.7
Mortgage loans	20.9	5.2
Properties in Canada	20.9	5.0
Liabilities:		
Demand deposits		
Canadian residents (individuals)	1.3	0.1
Canadian businesses	5.4	1.3
Non-residents	0.9	1.3
Notice deposits		
Canadian residents (individuals)	25.4	2.8
Canadian businesses	4.0	2.1
Non-residents	0.8	0.3
Term deposits		
Canadian residents (individuals)	16.6	4.7
Canadian businesses	9.0	31.9
Non-residents	9.6	20.2
Bankers' acceptances	8.4	13.2
Capital and reserves	6.1	6.5

1 Excluding the Bank of Canada.
SOURCE Statistics Canada, *Financial Institutions*, Third Quarter 1988, Cat. 61-006.

was U.S. firms that introduced mortgage-backed securities, for which a market subsequently developed.

Of those respondents to the Council's survey of nonfinancial firms that did business with foreign-bank subsidiaries, 81 per cent cited as a reason for doing so the fact that they provided more competitive services and products; 69 per cent invoked lower borrowing costs. The foreign banks also provide access to a worldwide distribution and information-gathering system, through which Canadians can be linked to developments abroad and obtain knowledge of the availability of funds and products.

Competition in the Securities Industry

Before the opening-up of the Ontario securities industry to nonindustry participants in 1987 and 1988, securities firms in that province were operating in a well-protected environment. There was a lack of competition, and firms were mostly undercapitalized. Since then, the purchase of securities firms by Canadian banks has contributed to increased competition and capitalization in Ontario. The entry of large foreign firms – such as Salomon Brothers, Nomura Securities, and Deutsche Bank – through subsidiaries will also benefit the state of competition in the industry.

Confidence in the Financial System

Increased competition could, however, impair the stability of the domestic financial system. The Darwinian principle of the survival of the fittest could force some competitors to leave the scene, sometimes in a not too orderly fashion. On the other hand, if the new entrants are relatively stronger than the institutions already in the market, they may contribute to an overall strengthening of the financial sector.

Many of the foreign-bank subsidiaries in Canada belong to mature international banking groups; and in any case they must demonstrate the viability of the parent corporation before the Canadian supervisory authorities will grant them a charter to operate in this country. In addition, their status as subsidiaries facilitates their supervision.

At the same time, however, the prohibition from operating as branches makes it more difficult for the subsidiaries to secure funds from their parent company – a potential source of problems if they run into financial difficulties. So far, there have been no failures of foreign-bank subsidiaries in this country, although several of them have withdrawn from the Canadian market because they were unable to conduct a large enough volume of business.

Similarly, the foreign securities firms that have established themselves in Canada are subsidiaries of large companies with a worldwide distribution network. Because these multinational corporations have demonstrated their ability to withstand shocks, their presence in Canada tends to contribute to the stability of the domestic financial system.

The longer-term impact of the entry of foreign firms on the solvency of financial institutions and on the stability of the financial system also depends on the quality of the supervision of these institutions. The authorities of both the host and the parent country are faced with problems related to transparency, the division of responsibility, and the choice of the methods of surveillance.

Accessibility of Financial Services

The accessibility of financial services for all Canadians – the third condition for achieving efficiency of the financial system – could be enhanced by the entry of foreign institutions, although their contribution to that goal depends to a large extent on their distribution network in Canada.

Of the 268 branches of foreign-bank subsidiaries present in Canada at the end of 1988, a large number (106) were located in the greater Montreal or Toronto areas; most of the others were also in urban centres. The only foreign-bank subsidiaries with a significant branch network were the Hongkong Bank of Canada, with 58 branches, and Lloyds Bank of Canada, with 54 branches – the result of their acquisition of two smaller Schedule A banks.

Larger cities are well served by the networks of the chartered banks, the trust companies, and other financial institutions.[12] Many smaller towns and rural areas are served only by the local branch of a chartered bank or by a local credit union or *caisse populaire*, so that residents do not have ready access to a full range of financial products. As a rule, foreign-bank subsidiaries have not located their branches in these smaller communities and thus have had no appreciable impact on the accessibility of retail financial services.

Net Impact on Efficiency

Overall, the entrance of foreign-bank subsidiaries has had a positive though modest impact on the efficiency of the banking system in Canada. Most of this impact is to be found in the middle market for business loans, where the foreign-owned subsidiaries have contributed to an increase in competition. They have also introduced and promoted a

number of new products. In the corporate market, they have lowered the cost of funds, particularly for firms using the bankers' acceptance market. They have had very little impact, however, on the retail market. Overall, the impact of foreign banks has not been very large because their scope for action is limited by the ceiling imposed on their assets.

It is too early to assess the impact of the entry of foreign securities firms on the efficiency of the financial system. Because the Ontario securities industry was heavily protected for nearly two decades, the opening of this market to foreign competition should lower the cost of issuing securities for Canadian corporations and increase the array of products available.

. . . and on the Economy as a Whole

The greater availability of financial services at a lower cost benefits businesses that are themselves producers of goods and services, thus increasing the overall level of economic activity. As the information costs related to the securing of financing are lowered by the presence of either Canadian or foreign financial firms with worldwide distribution and information systems, the operating costs of the Canadian customers of these institutions are themselves lowered, again resulting in an overall gain of economic activity.

While the entry of foreign banks normally has a positive impact on the efficiency of the financial system, some observers are concerned that it will reduce domestic control over monetary policy. Many reports and studies have shown, however, that most, if not all, of the constraints on the conduct of monetary policy are linked to the internationalization of markets and to the increase in cross-border flows of funds – not to the establishment of foreign banks in domestic markets.[13]

Autonomy of the Domestic Financial Industry

The maintenance of a strong domestic presence in certain industries deemed to be of national significance has always been an important issue in Canada. The overwhelming size of the U.S. economy and of its corporations, as well as the extensive control by foreign (particularly U.S.) firms of many Canadian industries, has made Canadians keenly aware of the risk of foreign domination of their economic future.

Foreigners will normally be successful in gaining control of an industry, however, only if they have some special advantage. That often means added benefits for Canadian consumers, but Canadians have, on many occasions, judged that keeping foreign domination at bay was worth some loss of economic benefits to consumers.

In the past, large segments of the financial sector have been protected, and some are still shielded against foreign penetration. A difficult aspect of this issue is that while the economic benefits of foreign entry can often be set out quite easily, the costs are often difficult to quantify.

To date, the small size of foreign-bank subsidiaries in Canada has had no appreciable effect on domestic ownership in that industry. While over half of the life insurance companies registered federally are foreign, Canadian firms still dominate the industry. There is no foreign presence in the trust industry, or among credit unions and *caisses populaires*; the securities industry remains largely in Canadian hands.

Nevertheless, control over domestic financial institutions is a delicate topic that often raises deep emotions. More than 30 years ago, the Gordon Commission recommended that "control" of the financial industry be one of the major objectives pursued by Canadians.[14] The Porter Commission reiterated this position in 1964. The threat of a loss of Canadian control over the banking and securities industries through foreign entry has prompted protective legislation at the federal level and in some provinces. In its December 1986 Blue Book, however, the federal government stressed the objective of maintaining a sound and strong "participation" by Canadians in their financial industry. The notion of "control" has thus been replaced over time by that of a "strong Canadian presence." This change is not purely semantic, for it reflects a recognition of the worldwide trend towards greater internationalization of financial markets and greater integration of domestic markets.

Canadians are not alone in their concern for a strong domestic presence in the financial industry. Even in the United Kingdom – the country where internationalization has made such significant inroads – authorities believe in a strong domestic presence. In the words of the governor of the Bank of England,

> . . . it is of the highest importance that there should be a strong and continuing British presence in the banking system of the United Kingdom. It runs counter to common sense to argue that the openness of the London market must be carried to the point where control of the core of our financial system – the payments mechanism, the supply of credit – may pass into the hands of institutions whose business aims and national interest lie elsewhere.[15]

Similarly, the plans for the completion of the internal market by the end of 1992 within the European Community

include provisions aimed at maintaining a strong domestic presence in individual financial markets.

In assessing the benefits of foreign entry, it must be asked if, in fact, that is the best – or the only – way to achieve greater competition, accessibility, and stability. Competition and accessibility have been hampered by the pillar system, which prevents institutions from competing in all markets. In *Competition and Solvency* (1986), the Council proposed ways of increasing these two features of the system while retaining the benefits of the separation of major functions. Stability could be improved to a greater degree through regulatory reform and enhanced supervision (including international coordination) rather than by relying on the security provided by large foreign institutions. And of course, the wholesale segments of the banking and securities industries are, in fact, already subject to intense international competition.

The retail-banking segment, including the middle market for loans, is currently not directly affected by foreign competition, except to the extent that it is being served by the subsidiaries of foreign institutions. Without a subsidiary in Canada, foreign institutions cannot compete in this market. If parts of the middle market were made internationally tradable through securitization, for example, competition and accessibility could be enhanced without there being any need for additional foreign firms in Canadian markets. By making instruments such as mortgages and business loans available to a wider spectrum of investors, securitization could bring the benefits of international competition to these markets. However, where foreign institutions are more innovative than Canadian firms, their physical presence in Canada could be an important means of transferring financial technology into Canada.

There are several potential costs associated with the domination of foreign institutions in the financial industry, at least from a theoretical perspective.

In the absence of a strong Canadian-controlled industry, the ultimate decision centres of key institutions may be located in foreign countries. Two aspects of this question are important. The first has to do with the flow and interpretation of information; the second, with the corporate objectives of the institution.

As noted earlier, the quality of information deteriorates with distance, and that is one important reason why many financial institutions have established a presence abroad. But the correct assessment of the information gathered locally also depends on the decision centre being close to the source of the information. One might argue that, this being the case, foreign institutions would be at a competitive disadvantage and would not present a threat to domestic institutions. The problem is that once the foreign institutions have acquired a sufficiently large share of the market, the weakened domestic institutions may not be able to provide adequate competition in all sectors; medium-sized borrowers and investors may suffer.

The corporate objectives of foreign institutions may be more attuned to the conditions and policies of their home country than to those of the host country. For example, the foreign institutions may give priority financing to corporations from their home country or may withhold financing from third-country corporations. The long-term objectives of multinational corporations headquartered abroad may dictate concentration on markets in other countries, to the detriment of service to Canadian customers.

But while the economic impact of the location of decision centres may potentially be large, it is difficult, if not impossible, to quantify. That impact is likely to depend, to a large extent, on the degree of integration of the foreign subsidiary into the domestic economy and on its identification with domestic objectives. If a subsidiary considers itself a domestic corporation that happens to be owned by foreign interests, it will most likely behave much more as a domestic institution than one that views itself as an integral part of a foreign corporation. And of course, a joint venture that is partly owned by foreign interests may be able to deliver the benefits of foreign entry while still behaving as a domestic firm.

In addition, those who deal with the country's major financial institutions on a day-to-day basis may derive satisfaction and confidence from the fact that they are Canadian-owned. National pride may also dictate that important sectors of the economy, such as the financial industry, remain firmly in Canadian hands.

With the breaking-down of the barriers to the entry of foreign firms into domestic markets, the question of their sensitivity to the host country's national goals has become more prominent. In the United States, some domestic institutions have complained that foreign banks, in particular those that entered the U.S. market before 1978 – the date of implementation of the International Banking Act – are allowed to be active in the securities sector, while U.S. banks are denied access to that industry by the Glass-Steagall Act.

Similar grievances have been heard in Canada, where foreign institutions with important nonfinancial (or "commercial") links are allowed, while Canadian banks cannot maintain such links. The recent uproar about the approval,

by the federal government, of the application by American Express to establish a Schedule B bank, through its Travel Related Services division, is an example.[16]

Two types of complaints have been made. The first is that the American Express Bank would be associated with companies in Canada that provide services that Canadian banks cannot offer under current legislation. The services that are envisaged include the direct marketing of goods through credit-card operations and the offering of travel and insurance services. The second issue is that only a bank may open a foreign-bank subsidiary, and some have argued that the Travel Related Services division does not conform to the definition of a bank.

The American Express case illustrates the difficulties that arise when foreign institutions enter markets that are subject to different regulations than their home markets. Because of those difficulties and because of the need to maintain a strong domestic sector, caution must be exercised in allowing foreign entry. It may be, however, that when the costs are weighed against the benefits, preventing foreign entry will not appear as the optimum solution. Rather, it may be just as important, if not more, to take steps to strengthen the domestic industry.

Future Directions

A cautious approach to foreign direct investment suggests that if Canadians open up their domestic markets to foreign institutions, then foreign markets must also be made accessible for Canadian institutions. The obstacles to entry that remain currently are legal, cultural, and social.

The legal restrictions are largely in the form of direct barriers to entry and of limits on the types of operations that foreign institutions may perform once they have established a presence in a foreign market. These obstacles may be found both in the home and in the host country.

The regulations governing financial institutions in their home country may, for example, limit directly the kinds of activities that they can conduct abroad. Thus, until recently, Japanese financial institutions could not participate in futures trading. Restrictions on the range of activities that institutions may perform at home could also reduce their ability to compete in foreign markets. Or else, the home country may prevent its financial institutions from entering a foreign country by failing to provide reciprocal privileges for the institutions of that country.

But most of the regulatory restrictions are generally imposed by the host country. They range from an outright ban on the establishment of any foreign-owned financial institution to restrictions on the growth of either the assets or the branches of foreign institutions, once established in domestic markets, or on the range of activities that can be undertaken.

Many financial institutions regard legal barriers as minor irritants that can be circumvented, albeit at some cost. In many countries, however, cultural barriers that are deeply embedded in the psyche of the people are much more difficult to overcome. Because of Canada's open economy and of the cosmopolitan character of its population, the acceptance of foreign firms has not raised great difficulties here. However, Canadian institutions seeking to open offices abroad – in Japan, for example – have not always been accepted so easily. (See Appendix A for a more detailed examination of the barriers that remain.)

Two recent developments may lead to a further lowering of barriers to trade in financial services and to the establishment of foreign financial institutions in domestic markets. These are the Canada-U.S. Free-Trade Agreement and the scheduled full integration of domestic markets by the end of 1992 in the European Economic Community.

Canada-U.S. Free Trade

The Canada-U.S. Free-Trade Agreement is the first legally binding trade agreement to include the service sector. Its coverage of the financial area is less extensive than in other categories of services, however. While the agreement does not explicitly acknowledge the principle of national treatment (see box), it is broadly in line with that principle.[17]

The agreement removes the limits imposed by the Bank Act on the entry and operation of U.S. banks in Canada. While they must still establish subsidiaries under Schedule B of the act, the subsidiaries are not subject to any constraint on the growth of their assets or on the number of branches. In addition, the agreement removes the 25-per-cent limit on holdings by foreigners of the capital stock of key financial institutions (such as insurance companies, trust companies and Schedule A banks). It does maintain, however, the 10-per-cent restriction on the ownership of Schedule A banks.

In return, Canadian financial institutions have received the assurance that they will not be treated by U.S. laws less favourably than U.S. institutions. In particular, should the Glass-Steagall Act be amended, the benefits of the changes will be extended to Canadian institutions. As well,

National Treatment and Reciprocity

Three concepts may govern the entry and operations of foreign institutions in domestic markets – national treatment; reciprocity; and most-favoured-nation treatment.

Under the national-treatment approach, foreign-owned firms are to be treated no less favourably than national enterprises that undertake the same activities. This does not mean, however, that foreign and domestic institutions are always treated in exactly the same way. The national-treatment concept is used by the OECD in its code on international investment; it is also an underlying concept in the Canada-U.S. Free-Trade Agreement.

Reciprocity is a principle stating that governments must grant similar concessions to each other. Reciprocity has always been one of the main objectives of GATT negotiators. As far as financial services are concerned, the application of the reciprocity principle means that foreign financial institutions operating in Canada must enjoy a treatment as attractive as that offered to Canadian institutions abroad.

The most-favoured-nation status in the financial sector signifies that the establishment and operating conditions faced by the foreign country will be similar to the best operating conditions imposed on any other country.

Canadian institutions are empowered by the agreement to manage and distribute the issues of the Government of Canada and other Canadian public authorities in the United States.

The Canadian securities and insurance industries had both been open to foreign entry before the agreement was negotiated. This has been enshrined in the agreement.

Because it is tacitly built on the concept of national treatment, the free-trade agreement does not attempt to achieve convergence of regulation between the two countries. It does, however, formally establish the principles of freedom of capital movement and of the right of establishment.

European Integration

A major objective of the European Economic Community is to establish, by the end of 1992, a single market that will allow almost complete freedom of movement for people, goods, services, and capital. In the financial area, this integration covers two aspects – the right of establishment of institutions from member countries and the freeing of cross-border capital movements.

The right of establishment is based on a mutual recognition of the regulatory frameworks in place in the member countries and on supervision by the home-country authorities. By the end of 1992, there will be complete freedom to sell financial services from one's home base throughout the Community and complete freedom for banks and other institutions to establish operations in any member country and to exercise the same powers that they enjoy in their home countries. For example, a bank from a member country could set up representative offices, branches, subsidiaries, or joint ventures in any other member country. A company with a seat on a stock exchange in one of the member countries could obtain registration on any other stock exchange within the Community.

There will not be complete convergence of regulation, however. This marks a change in the approach followed by the architects of the Common Market. For many years, officials tried, without success, to achieve convergence of regulation and taxation. With the completion of internal markets scheduled for the end of 1992, they have changed their approach, hoping that the opening-up of markets will force a convergence that could not be achieved previously.

There is concern that full integration will result in the erection of new barriers that could make it more difficult for non-EEC countries to gain access to EEC markets. Currently, financial markets in the United Kingdom are fully accessible to foreigners; France, West Germany, and Belgium are gradually opening up their domestic markets as well. Under the new rules, however, non-EEC financial institutions would be allowed to operate in the Community only if reciprocal national treatment were granted by home-country government to all 12 member states. This raises fears, particularly among U.S. and Japanese financial managers, that European integration will mark a step backward for international trade in financial services and the right of establishment. However, the fear of exclusion from the EEC markets is a strong incentive for non-EEC countries, particularly Japan, to further relax entry into their home markets.

A Framework for Foreign Entry

As the examples of the Canada-U.S. Free-Trade Agreement and the European Community show, establishing a general framework to regulate the entry of foreign institutions into domestic markets poses difficulties. Canadians want their institutions to have access to foreign markets and to be subject to the same rules as domestic firms in those markets. But they balk at treating foreign firms as domestic institutions in their own markets if they deem the Canadian regulatory framework to be more liberal than that of the foreign country.

Another example of these kinds of difficulties is that U.S. banks would like to gain access to West German markets and enjoy the same powers as German banks, including the right to underwrite securities. But the U.S. authorities do not wish to grant any foreign banks access to U.S. securities markets, as this would be contrary to the Glass-Steagall Act, which is still in effect in the United States.

At the present time, foreign interests wishing to establish a bank, a trust company, or a loan company in Canada must first demonstrate that their country of origin offers, or is willing to arrange, access to their domestic market for Canadian institutions. The United States offers national treatment, which is less favourable to Canadians than reciprocity because of the limitations imposed by the Glass-Steagall Act. The Japanese government offers conditions that are even more restrictive than national treatment.

Of course, some regulation in Canada may also limit the benefits available to foreigners under national treatment. For example, the wide ownership rule, which effectively restricts foreign banks from purchasing Canadian banks, may limit the potential benefits to foreign institutions, particularly those interested in entering the retail banking market in Canada. In addition, the limited progress in regulatory coordination among Canadian jurisdictions (a subject that is dealt with in the next chapter) may also reduce the potential benefits for foreigners. The size of the market to which access is given could also be an important consideration. It has been argued by U.S. negotiators, for instance, that the larger size of the U.S. market, relative to that of Canada, confers more benefits on Canadian than on U.S. institutions.

While many countries may wish to base the entry of foreign institutions on the principle of reciprocity, it is a very difficult concept to administer, as it would result in institutions from different countries having different powers in domestic markets, depending on what the domestic institutions are allowed to do in the parent country. This poses a genuine dilemma for negotiators when regulation in one country is more restrictive than in the other. National treatment, which is much easier to administer, may confer larger benefits on the institutions of the more restrictive jurisdiction than it does on those of the less restrictive.

Of course, there are benefits for lenders and borrowers from the entry of foreign institutions, aside from those that accrue to the institutions themselves. However, it is also in the interest of Canadians to have strong domestic institutions. In negotiations leading to national treatment, efforts should be made to narrow the differences in the gains for the institutions of the two countries by as much as possible. In particular, this would include pressing for easing restrictions in the more restrictive country and a liberal approach to the application of that country's regulations as they apply to the institutions of the less-restrictive country.

These concerns have been partially met by a national-treatment approach based on reciprocity of entry – "reciprocal national treatment."

* * * * *

Reciprocal national treatment would be part of a cautious approach to foreign direct investment in the financial-services industry. As the barriers to the establishment of foreign institutions in domestic markets continue to be lowered, a number of challenges remain for Canadian policymakers. While there are clear benefits to be had from the entry of foreign institutions, that could present problems if it resulted in too great a dominance of the Canadian market. The competitiveness of Canadian institutions must be preserved and enhanced, particularly where they are losing market share, but not at the cost of the stability of the financial system. As foreign institutions continue to penetrate domestic markets, the need for international cooperation, the topic of the next chapter, becomes more urgent.

6 International Cooperation

Financial innovation, the internationalization of financial markets, and the penetration of domestic markets by institutions from foreign countries are opening up new horizons for borrowers, investors, and financial institutions; but at the same time, they carry costs and introduce new risks – a reduction in the overall transparency of financial systems and the speedier international transmission of local shocks, for example. They are also increasing the interdependencies among nations and reducing the scope for independent macroeconomic policy action by individual nations. Cooperative action is a means to reduce the potential for instability in international financial markets, and it can improve the effectiveness of macroeconomic policy. Because the Canadian economy is small, relative to the largest industrialized nations, and because it has always been very open internationally, it can benefit significantly from international cooperative efforts.

The integration of financial markets around the world and the fact that many financial institutions operate in more than one country raise questions about the stability of both domestic and international markets and about the effectiveness of prudential supervision. To a large extent, the success achieved in supervising domestic and foreign institutions operating in any domestic market rests on the availability of information on the operations of those institutions beyond the national borders. In addition, cooperation among supervisors – both domestically and externally – can ensure that no institutions will escape supervision. The effectiveness of prudential supervision will be further enhanced if there is a degree of convergence between the regulatory systems of different countries. There is a further advantage to regulatory frameworks that are similar. By evening out the ground rules under which institutions operate, they help to promote fair competition.

Achieving cooperation is not an easy task. It requires agreement on common principles, guidelines, and methods of implementation. But differences in legal and institutional frameworks and in national objectives, dictated by significant differences between nations in wealth, social development, and economic performance, make such agreements more difficult.

Nevertheless, some progress has been achieved. Steps have been taken by several nations to coordinate prudential supervision by explicitly sharing responsibilities, exchanging information, and setting common capital requirements and common rules for the operations of financial institutions. Changes in domestic regulation, driven by the demands of a more global marketplace, have brought some convergence in regulatory frameworks. Some of these changes were the direct result of cooperation – the EEC directives aiming at a single market by 1992, for example. Others have been taken by individual countries that did not want to lag behind their foreign competitors. Throughout the 1980s, there have also been sporadic attempts at coordinating macroeconomic policies.

There are various levels at which nations can commit themselves to achieving common goals. At the elementary level, they may simply inform other countries about their policies and seek or give advice – a form of "consultation." They may go further, explicitly agreeing on broad policies and objectives. Such "cooperation" implies that one nation will not set its policies so as to undo what others have done. "Coordination" entails an even greater commitment; it involves setting policies jointly to achieve common objectives. This may, in some cases, require the actual harmonization of regulations among jurisdictions; in other cases, it may be possible to achieve these common objectives while retaining quite different regulations. Achieving stability in the world financial system calls for cooperation – and at times coordination – to ensure that no facet of international finance is left outside the purview of some nation's supervisory authorities.

The coordination of supervision and regulation may improve the efficiency of the international financial system – by contributing to its stability, for example – provided, however, that nations avoid "coordination at any cost." The adoption of standards at the level of the lowest common denominator could seriously impair the financial system's stability. It is in the ultimate interests of all nations to ensure the best form of coordinated supervision and regulation.

The Basle Concordat

The stability of any financial system can be greatly enhanced by a regulatory structure that aims not only at providing consumer protection but also at removing

competitive differences between institutions fostered by regulation. It is also important that the rules minimize the risk that solvency or liquidity problems encountered by one institution will spread to others. The failures of the Canadian Commercial Bank and the Northland Bank have more than adequately demonstrated the costs that can arise from the possibility of such contagion effects.

On the international scene, contagion effects sweeping from nation to nation could impose large costs, both through direct losses to individuals and firms and through the inability of the international financial system to perform its intermediation role and to provide the means of payment. Before 1975, there were only infrequent, primarily bilateral, consultations between national authorities. The failures of the Herstatt Bank and the Franklin National Bank in 1974, however, made the authorities aware of the potential for a major international financial crisis resulting from the failure of a large, internationally active bank. Since then, national governments have paid more attention to the need for the international coordination of regulations.[1]

The first successful international attempt at coordinating financial-market regulation is the Basle Concordat, drafted by the Committee on Banking Regulations and Supervisory Practices of the Bank for International Settlements (BIS). Originally signed in 1975, the concordat was revised in 1983 and endorsed by the regulators of the Group of Ten and Luxembourg, which make up the committee.[2] It was subsequently endorsed by the Offshore Group of Banking Supervisors,[3] as well as by the regulators of several other countries. The Basle Concordat deals with prudential supervision and solvency. It is based on two important principles: no institution should escape supervision; and supervision should be adequate wherever institutions operate.

According to the concordat, both the home country and the host country of a financial institution share the responsibility for supervising its activities. The concordat incorporates the principle of consolidated supervision, which assumes that banking supervisory authorities can only be fully satisfied with the soundness of individual banks when they can examine the totality of each bank's worldwide business. The concordat states that

> adequate supervision of banks' foreign establishments calls not only for an appropriate allocation of responsibilities between parent [i.e., home] and host supervisory authorities but also for contact and co-operation between them. It has been, and remains, one of the Committee's principal purposes to foster such co-operation both among its member countries and more widely.[4]

The concordat distinguishes three kinds of foreign banking establishments: branches, subsidiaries, and joint ventures (or consortia). A branch does not have a distinct legal status and thus is an integral part of the foreign parent bank; a subsidiary is legally independent and is owned, wholly or on a majority basis, by a foreign bank; a joint venture is a legally independent institution, controlled by two or more parent institutions, which are usually foreign.

The concordat covers in detail three major issues with respect to those three categories – namely, solvency, liquidity, and foreign-exchange operations and positions. In the matter of solvency, the supervision of a branch is primarily the responsibility of the authority supervising the parent, while that of subsidiaries must be shared by the host and the home authorities; in the case of joint ventures, the country of incorporation must oversee solvency issues.

In the area of liquidity, supervisory responsibility rests with the host authority in all three cases; in the case of branches, however, host and home authorities are required to consult with each other. With respect to the foreign-exchange operations and position of banks, supervision must be assumed jointly. The home authority is responsible for monitoring the foreign-exchange exposure of the whole institution, while the host authority is in a better position to monitor the foreign-exchange exposure of foreign establishments operating within its own territory.

The text of the concordat acknowledges that there are practical difficulties in supervising foreign establishments. It recognizes that host authorities may not always be in a position to fulfil their supervisory obligations adequately – e.g., when a foreign establishment is considered a bank by the home supervisory authority but not by the host. The concordat notes further that if the supervision of the host authority is considered inadequate by the institution's home authorities, the latter should either extend their supervision or be prepared to discourage the bank from operating in the country in question. Problems may also occur when the host authority considers that supervision by the home authority is inadequate. In that case, the host authority could discourage the entry of the foreign bank or impose specific conditions with respect to its operations. Gaps in supervision also arise when the existence of holding companies is a barrier to adequate supervision.

A report prepared in 1986 by the Committee on Banking Regulations and Supervisory Practices notes the practical difficulties in the implementation of the concordat:

> The effectiveness of cooperation so far achieved in practice revealed some shortcomings. The supervision of most international banks' foreign establishments still appears to be conducted largely without any regular or structured consultation between the respective parent and host supervisors.[5]

Contacts between host and home authorities are not as frequent as advocated in the concordat. A major constraint frequently facing the host authority is a lack of resources, particularly human resources. Important differences in the scope and depth of approaches to supervision in the host and home countries are a further hindrance. Home authorities may have little need to contact host authorities in search of information, particularly when the foreign establishment is small relative to its parent and thus cannot affect the stability of the group. Also, home authorities may be reluctant to divulge to other countries the problems facing domestic banks with foreign branches or subsidiaries.

Several studies have recognized that, despite the concordat, gaps remain in the supervision of banks, particularly when national governments do not have the capability or the will to ensure adequate supervision of foreign establishments operating in their territory.[6] While the principle of consolidated supervision is generally accepted as a useful instrument for supervisory purposes, the extent to which it should be extended remains a matter for discussion. Moreover, there is no consensus as to whether or not consolidation should extend to associated nonbanking and nonfinancial institutions, and there are difficulties in assessing and monitoring risk concentration.

While many difficulties remain in the coordination of the prudential supervision of commercial banks, the Basle Concordat marked a first achievement of this kind in international financial markets. It was followed by the establishment of various coordinating bodies, which have been working towards the strengthening of contacts between supervisors, the elaboration of broad common principles to guide prudential supervision, and the improvement and dissemination of statistical information.[7] As a result, communication between national supervisors has greatly improved, resulting in better monitoring of the solvency of banks and in the increased stability of the financial system.

Agreement on Risk-Weighted Capital/Asset Ratios

A financial institution needs an adequate capital base to conduct its operations safely. The larger its capital/asset ratio, the greater its ability to withstand losses. But the assets of financial institutions carry varying degrees of risk, and riskier assets should have greater amounts of capital held against them. However, higher capital requirements reduce the average rate of return to capital and may discourage an institution from taking part in certain activities. If capital/asset ratios are set too high for a specific class of activity – commercial lending, for example – institutions may decide to withdraw from that market and seek activities with lower capital costs. That would reduce the efficiency of the financial system and impose additional costs on the commercial sector. At the same time, it is important that institutions that compete with one another should face similar capital costs. Such commonly set capital standards would help to reduce these cost differences among institutions from various countries. Agreement on common capital adequacy rules should discourage attempts by one country to give its institutions a competitive advantage by allowing them to reduce their capital standards, thereby making the whole international financial system less stable.

As the capital base of many banks around the world declined in relation to their total assets in the 1960s and particularly in the 1970s, the BIS Committee on Banking Regulations and Supervisory Practices submitted a paper to the Group of Ten central-bank governors, pointing out the importance of preventing further erosion of capital ratios. In the International Lending Supervision Act of 1983, the U.S. Congress instructed the chairman of the Board of Governors of the Federal Reserve System and the Secretary of the Treasury to work in international forums towards strengthening the capital base of commercial banks involved in international lending.

Many countries had already introduced risk-related capital-adequacy measures – France, in 1979; the United Kingdom, in 1980; and West Germany, in 1985.[8] In January 1987, a proposal for risk-based capital requirements was announced simultaneously in the United States and the United Kingdom. The major issues in the U.S.-U.K. agreement concerned the definition of capital, the assessment of the risk of various balance-sheet items, the inclusion of off-balance-sheet commitments, and the consideration of "country" risk involved in international lending. Japan expressed its intention to implement a similar measure, and at its April 1987 meeting, the BIS committee considered expanding the U.S.-U.K. agreement to include all members of the Group of Ten, as well as Luxembourg. In July 1988, a new agreement, designed to strengthen the capital position of international banks and to put them on an equal competitive footing with respect to capital, was signed by those countries. It marked another milestone in cooperative efforts in the prudential supervision of banks.

The agreement includes a set of standards with respect to capital requirements that all those countries must meet (referred to as common minimum standards). These standards increase the effectiveness of the supervision of international banking. They also discourage banking groups from shifting activities to establishments in countries where capital requirements are much lower. This strengthens the overall stability of banking groups.

The BIS Committee on Banking Regulations opted for risk-weighted capital/asset ratios because they facilitate comparisons between banking systems with different structures, allow the incorporation of off-balance-sheet exposure into the determination of the ratios, and do not deter banks from holding liquid or other assets that carry low risks. The framework developed by the committee led to a set of recommendations that were intended to be conceptually sound and to take into account national particularities in the existing supervisory and accounting systems of individual countries. The committee noted: "In certain limited respects (notably as regards the risk weightings) the framework has been designed to allow some divergence in national approaches during, and to a lesser extent also after, the transition period."[9] The proposal only sets minimum levels for internationally active banks. It recognizes that national authorities are free to adopt arrangements that require higher levels and to propose different capital requirements for domestic institutions.

Despite some shortcomings (discussed below), the July 1988 agreement is an important achievement, in view of the many hurdles that the committee had to overcome, especially the differences between countries with respect to the definition of capital.[10]

To take account of these differences without compromising the objectives of capital requirements, the committee proposed a two-tier definition of capital. Tier 1 contains elements universally accepted in all countries. It is the core capital, made up of common shares and disclosed reserves. Tier 2 is considered as supplementary capital and consists of elements that present some assessment problems or that are not fully accepted by all countries. For capital requirements to be met, at least half of the capital required must be in Tier 1. Loan-loss provisions allowed under Tier 2 may not include loss provisions assigned to current loans in difficulty and must be limited to 1.25 per cent of risky assets. Subordinated term debt must be limited to a maximum of 50 per cent of Tier 1 elements. "Good will," which is the difference between the market value of a corporation and the value of its net tangible assets, is to be deducted from Tier 1 capital elements when it is included among the assets on a bank's balance sheet; however, holdings of other banks' capital items (such as equity issues) need not be deducted, even though such deductions are required by the regulatory authorities of some countries.

In developing risk-weighted capital/asset ratios, two other elements must be determined. The first is the standard ratio – i.e., the ratio of capital that must be held against assets, adjusted for their different degrees of risk. The target ratio was set at 8 per cent in the July 1988 agreement and is expected to be achieved by the end of 1992. The Tier 1 capital element should be at least 4 per cent. A transitional period – from 1988 to the end of 1992 – has been set for the implementation of the agreement. The second element consists of the weights to be attached to various classes of assets before applying the standard capital/asset ratio. For example, mortgage loans carry less risk of default than commercial loans, on the whole; as a consequence, a bank that holds only mortgage loans should not be required to set aside as much capital as one that extends only commercial loans. To deal with this, each actual category of assets is transformed into an equivalent risk-adjusted asset to which the 8-per-cent ratio will apply.[11] The BIS Committee on Banking Regulations used four weights – 0, 20, 50, and 100 per cent – in calculating the capital that must be held against credit risk (Figure 6-1).

Another source of difficulty was the treatment of off-balance-sheet items, which the committee believed should be reflected in the capital-adequacy framework. Some off-balance-sheet items – such as guarantees and standby-credit commitments – do not subject the bank to the risk of loss of the full face value of the item; they are evaluated at a lesser amount for capital-requirement purposes. The face values (or nominal principal amounts) of these off-balance-sheet items are multiplied by a credit-conversion factor, and the resulting amounts are then weighted as if they were ordinary balance-sheet assets, according to the nature of the counterparty.

The committee was less specific in calculating the credit-risk equivalents of interest- and exchange-rate-related items, such as swaps, options, and futures. The banks that use these instruments are not exposed to credit risk for the full face value of the contract but only for the cost of replacing a cash flow if the original counterparty defaults. For example, suppose that a bank enters into an agreement to swap fixed-interest income on one of its loans for a floating-rate interest on a $100-million nominal amount. If the counterparty to the swap defaults and if the (floating) interest rate rises, then the bank will lose the increase in the interest income that it would have realized from the climb in the floating rate. Thus the credit equivalence depends on the maturity and the volatility of the price or rate underlying that type of instrument. Since exchange-rate contracts involve an exchange of principal at maturity and since they are more volatile, higher credit-conversion factors are proposed for those instruments. An exemption from capital requirements will be permitted for instruments traded on organized stock exchanges when they are subject to daily margin requirements or when replacement costs are fully collateralized by cash and government securities.

In the short run, the July 1988 agreement will impose different costs on different banks; some will have more

Figure 6-1

Risk Weights, by Category of On-Balance-Sheet Asset

(Per cent)	
0	(a) Cash
	(b) Balances at and claims on domestic central bank
	(c) Loans to domestic central governments
	(d) Securities issued by domestic central governments
	(e) Loans and other assets fully collateralized by cash or domestic central government securities or fully guaranteed by domestic central governments
0 or 20	(a) Claims on IBRD and regional development banks (at national discretion)
20	(a) Claims on domestic and foreign banks with an original maturity of under one year
	(b) Claims on domestic banks with an original maturity of one year and over and loans guaranteed by domestic banks
	(c) Claims on foreign central governments in local currency financed by local currency liabilities
	(d) Cash items in process of collection
0, 20, or 50	(a) Claims on the domestic public sector, excluding central government (at national discretion) and loans guaranteed by such institutions
50	(a) Loans to owner-occupiers for residential house purchase fully secured by mortgage
100	(a) Claims on the private sector
	(b) Cross-border claims on foreign banks with an original maturity of one year and over
	(c) Other claims on foreign central governments
	(d) Claims on commercial companies owned by the public sector
	(e) Premises, plant and equipment, and other fixed assets
	(f) Real estate and other investments (including nonconsolidated investment participations in other companies)
	(g) Capital instruments issued by other banks (unless deducted from capital)
	(h) All other assets

SOURCE Bank for International Settlements, Committee on Banking Regulations and Supervisory Practices, "Proposals for international convergence of capital measurement and capital standards," Basle, December 1987.

catching-up to do than others. While the end result will be to level out the competitive advantages granted by some countries' regulation, during the transition period banks from some nations will be in a relatively less favourable position than others. For example, it has been estimated by the Federal Reserve Board that U.S. banks will have to raise as much as US$15 billion in new capital, and Japanese banks, between US$20 billion and $30 billion.

In addition, while some countries may decide to impose the minimum capital requirement only on international banking activities – as spelled out in the agreement – the Federal Reserve Board and other U.S. regulatory agencies intend to impose them on all 14,000 banks and to bank-holding companies as well. Currently, the total capital requirement stands at 6 per cent; it will be raised to 8 per cent by 1992.

Table 6-1 shows the actual capital ratios of major banks in selected countries in 1987, as well as the ratios that they would have had if their capital had been calculated under the rules of the July 1988 agreement. In many cases, a shortfall would have occurred because Tier 2 capital in excess of Tier 1 is not allowed to be included in the calculation. The greater catching-up burden falls on Japanese and French banks, although the Japanese banks are expected to receive special consideration from the Japanese authorities. Canadian banks have also experienced a shortfall, but it is not as large as that of Japanese or U.S. banks. The Swiss banks are in the most comfortable position.

Alluding to the government assistance received by Japanese banks, Canadian institutions criticize the Office of the Superintendent of Financial Institutions for being too conservative in its interpretation of the agreement and for subjecting domestic banks to conditions that are too harsh and that will adversely affect their competitiveness on international markets. In particular, Canadian banks deplore the fact that they will not be able to use the loan-loss provisions for their Third World loans as part of the capital base, while in the United States up to 1.25 per cent of risk-weighted assets may come from such provisions. The banks also object to the fact that the Superintendent will not agree that hidden reserves be added to Tier 2 capital and that the revaluation of their real estate holdings is not included in the definition of capital.

While the rules as applied in Canada may be more stringent than those applied in the United States and Japan, they are likely less so than in the United Kingdom. For example, the Superintendent has ruled that securities issued or guaranteed by the Government of Canada and by the provincial governments will have a risk weight of zero. In the United Kingdom, on the other hand, government paper is assigned a risk weight of either 10 or 20 per cent, while in the United

Shortcomings of the July 1988 Agreement on Risk-Weighted Capital/Asset Ratios

The July 1988 agreement has been praised in many circles, but it has also come under criticism from different sources. The agreement is the result of many compromises aimed at acknowledging the existence of different regulatory frameworks and the different vested interests of banks from different countries; and compromises usually leave many unsatisfied. But the shortcomings of the agreement go well beyond the compromises, as some of the more fundamental issues pertaining to prudential supervision in an internationally competitive environment were not fully explored in the rush to establish the new capital requirements.

First, the role played by capital requirements was not sufficiently examined. The rationale for establishing capital/asset ratios was that banks should have a cushion against large losses in their operations in order to increase their stability in a more volatile world. However, if a bank that is facing problems dips into its capital base, thus bringing its ratio below the required level, it is technically in default, at least in the eyes of the supervisory authority. That raises the issue – not spelled out in the text of the agreement – of the circumstances under which a bank will be allowed to carry an inadequate capital/asset ratio.

Second, the obligation to maintain or raise its capital base in the form of common shares or disclosed reserves represents a cost to the institution and may even have some negative impact on the domestic economy of its home country as a whole.

Third, the agreement considers only broad categories of assets and looks at average risk in each of these categories. It does not require the institutions to separate the more-risky individual assets from the less-risky ones but imposes the same risk weights on all assets in the category. As a result, the new capital standards may influence the lending behaviour of the institutions – by favouring categories of assets that have a lower-risk weight and thus driving banks away from certain types of loans, for example. On the other hand, once banks decide which category of lending they will undertake, they may have an incentive to acquire or invest in riskier assets within this category, thereby increasing risk and possibly their rate of return but not their capital requirements.

Fourth, the agreement deals almost exclusively with credit risk; no practical consideration is given to position risk. With the growth, in recent years, of bond and currency trading by banks, position risk – the risk that an asset will be affected by adverse price movements – has grown in importance. The major losses incurred by large institutions in the past had as much to do with adverse movements in market prices as with counterparty default. Thus one of the agreement's more serious shortcomings is that, while it acknowledges the existence of position risk, it does not deal with it. It should be emphasized, however, that how to deal with position risk is a very complex issue, as an institution may take a position in the futures, option, or swap markets either to hedge or to speculate. As a hedger, the institution would strive to improve its stability; as a speculator, it would lean in the opposite direction by taking on extra risks. Thus hedging and speculative moves should not be given the same treatment in prudential supervision, although both involve taking a position in those markets. More research in this area is needed to gain a better understanding of the position taken by banks.

States long-term securities issued by the federal government are given a 10-per-cent risk weight.

These differences in approaches between regulators of various countries will make it more difficult to eliminate competitive differences arising from this source – or even to assess the extent to which such competitive differences exist. On the other hand, there may be valid reasons for some of the differences. Representatives of the Office of the Superintendent of Financial Institutions have argued that the zero risk-weighting applying to Canadian banks' holding of securities issued by Canadian governments is justified because much of these holdings consist of nontraded loans and guarantees. This makes them less risky than U.S. banks' holdings of government securities. They also argued that loan-loss provisions were not included because that might inhibit banks from selling off their Third World debt.

The July 1988 agreement applies only to banks at the moment. In the context of the integration of national markets scheduled for the end of 1992, a similar agreement will be extended to all credit institutions operating within the European Economic Community. However, other financial institutions – such as merchant banks, investment banks, and securities firms – are active in markets where banks operate but are not subject to the same capital requirements. Not only does this divergent treatment limit the scope for competition between different categories of institutions, it flies in the face of the first principle of the Basle Concordat – namely, that no institution should escape supervision, a particularly serious concern in the context of the relative decline in traditional banking activities and the increase in securities transactions.

Prudential Supervision in the Securities Area

As an increasing proportion of financial business falls within the securities area – especially in view of the

Table 6-1

Current Standing on Capital Requirements for Major Banks, Selected Countries, 1987-88[1]

	Actual ratio held			Total ratio, as weighted under the July 1988 agreement[2]
	Tier 1	Tier 2	Total	
			(Per cent)	
United States				
BankAmerica	3.5	3.5	7.0	7.0*
Bankers Trust	6.7	2.7	9.4	9.4
Chase Manhattan	3.9	3.9	7.7	7.7*
Chemical	3.2	3.2	6.4	6.4*
Citicorp	4.1	4.1	8.2	8.2
First Chicago	4.0	4.0	8.0	8.0
Manufacturers Hanover	3.5	3.5	7.0	7.0*
JP Morgan	8.5	3.5	12.0	12.0
First Interstate	5.8	4.7	10.5	10.5
Mellon Bank	3.6	3.6	7.2	7.2*
Security Pacific	5.3	4.0	9.3	9.3
Wells Fargo	5.5	5.5	11.0	11.0
Japan				
City banks				
Dai-Ichi Kangyo	2.75	5.75	8.50	5.5*
Sumitomo	3.25	6.00	9.25	6.5*
Fuji	3.25	5.75	9.00	6.5*
Mitsubishi	3.25	6.25	9.50	6.5*
Sanwa	3.00	5.25	8.25	6.0*
Tokai	3.25	6.25	9.50	6.5*
Mitsui	3.00	7.00	10.00	6.0*
Taiyo Kobe	2.75	5.25	8.00	5.5*
Bank of Tokyo	3.25	5.75	9.00	6.5*
Long-term credit banks				
International Bank of Japan	2.75	8.75	11.50	5.5*
Long Term Credit Bank	2.75	8.25	11.00	5.5*
Nippon Credit Bank	2.25	7.25	9.50	4.5*
Trust banks				
Mitsubishi Trust	3.25	7.25	10.50	6.5*
Sumitomo Trust	3.25	7.25	10.50	6.5*
Mitsui Trust	3.25	10.00	13.25	6.5*
United Kingdom				
Barclays	6.3	4.8	11.1	11.1
Lloyds	4.6	4.6	9.2	9.2
Midland	5.7	5.1	10.8	10.8
National Westminster	4.9	3.5	8.4	8.4
West Germany				
Commerzbank	4.5	1.8	6.3	6.3*
Deutsche Bank	5.8	2.3	8.1	8.1
Dresdner Bank	4.6	1.3	5.9	5.9*

Table 6-1 (concl.)

	Actual ratio held			Total ratio, as weighted under the July 1988 agreement[2]
	Tier 1	Tier 2	Total	
			(Per cent)	
France				
Banque Nationale de Paris	4.1	2.1	6.2	6.2*
Crédit Lyonnais	3.5	2.5	6.0	6.0*
Société Générale	3.5	2.9	6.4	6.4*
Switzerland				
Crédit Suisse	9.7	6.1	15.8	15.8
Swiss Bank Corporation	8.9	6.7	15.6	15.6
Union Bank of Switzerland	9.8	7.3	17.1	17.1
Canada[3]				
Royal Bank of Canada	3.6	3.2	6.8	6.8*
Canadian Imperial Bank of Commerce	4.2	3.2	7.4	7.4*
Bank of Montreal	4.1	3.1	7.1	7.1*
Bank of Nova Scotia	3.7	2.9	6.6	6.6*
Toronto-Dominion Bank	5.4	2.1	7.5	7.5*
National Bank of Canada	3.8	3.9	7.7	7.8*

1 The figures for all countries except Canada are for 31 December 1987; the figures for Canada are for 30 April 1988.
2 The asterisks denote a deficiency relative to the target of 8 per cent set out in the July 1988 agreement.
3 The Tier 2 figures include Third World loss reserves of $5.2 billion, equal to 1.25 per cent of risk-weighted assets.
SOURCE *Euromoney* (July 1988), Burns Fry Limited, *New Capital Adequacy Standards for Banks* (Toronto: Burns Fry, 1988); and estimates by the Economic Council of Canada.

ever-widening use of securitization and of the new role played by commercial banks and other credit institutions – concern about the prudential regulation of securities activities must go beyond the simple protection of customers. The major securities houses trade on their own account and maintain markets in tradable securities; in the process, they may have large liabilities that are held by other financial institutions. Under those circumstances, a failure could have serious implications for the stability of the financial industry as a whole.

Unfortunately, from the perspective of prudential supervision, the securities area is much less advanced than is the banking sector. The securities industry does not have an international body playing a role similar to that of the Bank for International Settlements. The International Organization of Securities Commissions (IOSCO), established in 1973 to bring together securities regulators from North and South America, has since expanded to include those of about 45 nations, many of which are among the most industrialized. But that organization is still in its infancy. It was only in 1986 that IOSCO attained the stature of a true international organization with members from around the world.

A major objective of IOSCO is to foster the sharing of information among national regulators in order to bring about convergence in the regulation of securities markets and to facilitate international supervision of the industry. Several working groups were established in 1987 to deal with the questions of international investment and the issuing of securities, differences in accounting and auditing norms, financial regulation, prudential supervision, the prevention of fraud, and the establishment of an international clearing system. The working groups have made significant progress, especially with respect to the identification of barriers to the issuance of securities simultaneously in several countries. Some research has also been done on position risk and on the need to coordinate capital requirements with those recently imposed by the BIS Committee on Banking Regulations. In addition, IOSCO has been looking at the workings of stock markets, the causes of the October 1987 crash, and the steps to be taken in case of the failure of a major securities house. The organization has

also decided to broaden its terms of reference so as to include the consideration of option and futures contracts.

No agreement has yet been reached on any of these issues. Indeed, quick breakthroughs in international coordination of prudential supervision – an area where a degree of convergence in regulation is required – should not be expected, as the precedent in the banking industry has shown. It took more than a decade of consultation and cooperation to arrive at both the Basle Concordat and the agreement on convergence in capital requirements.

An important issue that has not been addressed directly by IOSCO pertains to the safety nets that are needed worldwide to protect the customers of securities firms and to ensure the continued solvency of the institutions themselves.

Historically, deposit insurance was introduced to maintain the confidence of depositors – in particular, smaller, less-sophisticated depositors – in the banking system. The lender-of-last-resort function was aimed at ensuring that the liquidity problems of banking institutions would not disrupt the payments system.

Both of these measures were introduced because of the "fractional reserve" nature of the banking system – i.e., because of the fact that only a fraction of the deposits entrusted to banking institutions are kept in the form of cash or very liquid assets. As most of the money is lent out in the form of commercial, mortgage, or personal loans, a bank would be unable to meet a request to refund all deposits simultaneously. It is this characteristic – and the importance of banks in the financing of economic activity and in the maintenance of a payments system – that led to the establishment of deposit-insurance funds and of a lender-of-last-resort facility.

In most countries, the central bank assumes the role of lender of last resort. While not all countries have deposit-insurance funds, they are becoming more common. West Germany, the United Kingdom, Japan, and the United States have deposit-protection schemes, although their coverage differs with respect to the amount and to the involvement of the depositor in a co-insurance scheme. When integration is achieved in 1992, most members of the European Community will be driven to set up such funds. In *Competition and Solvency*, the Council supported the continuation of insurance coverage at its existing level by the Canada Deposit Insurance Corporation.

With the growing importance of securities trading, the question arises whether protection funds and lender-of-last-resort facilities should be made available in the securities industry. Securities firms do not currently operate on a fractional-reserve system, and they are required by law to segregate the fully paid securities kept on behalf of customers from their own; a similar requirement exists for cash deposits, except in those cases where satisfactory arrangements have been made for bonding or insurance. The clientele of an investment dealer should therefore be largely unaffected by any financial difficulties faced by the firm, and the presence of a contingency fund serves mainly to protect the customers from fraud. However, because securities firms have grown in relative importance within the financial system and because they are counterparties to many contracts of other financial and nonfinancial firms, the failure of one of them could put a number of contracts in jeopardy and could adversely affect the stability of the financial system.

The October 1987 crash of the stock market is an example of the extraordinary circumstances in which this could occur. The failure of a major institution at that time would have had serious consequences for the stability of the whole system. In a coordinated effort, the central banks of the major developed countries injected extra liquidity into the world economy in the days following the crisis. That liquidity finally ended up with securities firms and enabled them to weather the crash.

Convergence of Regulation

International coordination in the prudential supervision of financial institutions goes hand in hand with the convergence of domestic regulatory frameworks. Some of the convergence that has taken place in recent years was the result of deliberate efforts by national regulatory authorities. This is especially the case in the European Economic Community, where member countries have taken steps to harmonize their respective regulations before the 1992 deadline. A number of directives have been issued with respect to the operations of financial institutions within the Common Market – e.g., their powers, their capital requirements, the supervisory apparatus, and so on. One directive would guarantee the institutions of one member country access to the domestic markets of all other member countries; another would allow any bank, authorized to participate in securities trading in its home country, to do so throughout the Community. But, in general, the proposed agreements rest on mutual recognition of the national regulatory frameworks in place.

In other areas of the world, convergence has not been the result of agreements between nations. As we have seen

previously, several countries have undertaken a massive reform of their domestic financial regulation independently. The reforms were dictated by the rapid changes in international markets and, in particular, by the phenomenal growth of cross-border capital flows. Driven by a common desire to widen opportunities in domestic financial markets while maintaining stability, national regulators and legislators slowly eliminated many of the differences between their respective domestic financial systems. In the end, the world witnessed a liberalization of the powers and activities of financial institutions that, in the absence of countervailing action, would have had a tendency to increase risk and reduce the stability of the financial system. This liberalization was also accompanied, however, by some strengthening of prudential supervision. The key to achieving an increasingly efficient financial system in the future – one that will be fundamentally stable as well as competitive – is to ensure that the system of prudential supervision keeps pace with the rapid changes in the marketplace.

Coordination of Macroeconomic Policies

In the context of the global financial system, shocks are being transmitted from one country to another more rapidly than ever before. The authorities have less time to take corrective action, and they must grapple with an erosion of their ability to control their own economies through traditional fiscal and monetary policies. As a consequence, cooperative effort in that area has taken on added importance in recent years.

As with the supervision and regulation of financial markets, there are different levels of cooperation and coordination in the area of macroeconomic policy. Senior government officials confer frequently in the context of the OECD, the IMF, and the G-7 meetings. While these encounters are not explicitly aimed at coordinating policies, they serve as forums for exchanging information and ideas. Cooperation at this level has been somewhat more focused following the Tokyo summit in 1986. At that meeting, it was decided that the Group of Seven finance ministers "will work together more closely and more frequently in the periods between the annual Summit meetings" and "review their individual economic objectives and forecasts collectively at least once a year." These reviews were to use a set of quantitative economic indicators.[12]

At the other end of the spectrum are agreements under which certain nations consent to follow very specific policies in order to achieve a desired objective. The most notable example of this kind of policy coordination was the agreement by the participating countries at the Bonn Summit in 1978 to stimulate the world economy. The agreement called for a major increase in expenditures by West Germany, along with significant increases in output by the other countries. Canada chose to meet its commitment through a tax cut. In order to reduce pressure on world oil prices, the United States was to decontrol domestic prices and to reduce U.S. consumption. This agreement is often cited as an example of what can be achieved through a concerted effort; it was also criticized for not having been very effective.

There have been other instances where this type of coordination has been attempted, but the outcomes have not been too successful. The "Plaza Accord" of September 1985, which was an effort at controlling exchange rates, did not produce significant results. Subsequently, with the "Louvre Accord" of February 1987, the Group of Five[13] plus Canada agreed that countries with current-account surpluses should follow a policy of strengthening domestic demand in order to reduce external surpluses while maintaining price stability. Countries with deficits were to encourage growth with low inflation while reducing their domestic and external imbalances, in an effort to enhance the stability of currency markets. However, no significant results were produced.

Most of the research on macroeconomic coordination indicates that economic gains could be achieved, at least at the theoretical level, through such coordination. In practice, however, progress in this area has been modest.

The Gains from Coordination

There are different kinds of economic gains potentially available from macroeconomic policy coordination. As the economies of nations become more interdependent, changes in the policies of one country increasingly affect the level of interest rates, prices, and export demand in other countries. The magnitude of these "spillovers" of macroeconomic policy depends, of course, on the strength of the economic linkages between nations, especially the trade linkages. Increased government expenditure in one country leads to a heightened demand in that country for domestically produced goods and services as well as for those exported by other nations. Thus the more a nation imports and exports, the more it will be affected by fiscal policies in other countries that change their aggregate demand.

The effect of monetary policy is not as straightforward. Here, two impacts must be considered. First, an increase in the money supply of one country reduces interest rates in

that country and causes an outflow of funds to other countries. This causes a reduction in interest rates in those other countries, which has a positive impact on their level of production. At the same time, however, the inflow of funds into these countries raises the value of their currencies relative to the currency of the capital-exporting country. This change in exchange rates has a negative impact on their production, which varies with the relative importance of the export sector. A number of studies have concluded that the gains from coordinating macroeconomic policies that depend on the spillover effects are small.

A second kind of gain that is potentially available from macroeconomic policy coordination is associated with reducing exchange-rate volatility or correcting exchange-rate misalignments.[14] The gains from reduced volatility in exchange rates depend on the extent to which that volatility reduces world trade. A number of studies have been devoted to these issues; while the results are somewhat mixed, the weight of the evidence seems to indicate that the volatility of exchange rates has a small negative impact on world trade.[15] To the extent that policy coordination is able to reduce volatility, therefore, there should be benefits deriving from increased world trade, but these are not likely to be large.

While the impact of increased exchange-rate volatility on world trade is small, the impact of misaligned exchange rates can be quite devastating for exporters in countries with overvalued currencies. Between 1979 and 1981, for example, exporting industries in the United Kingdom suffered serious damage as a result of the overvaluation of the pound sterling. The more recent large swings in the U.S. exchange rate, particularly in relation to the yen and most European currencies, is another example of the extent to which currencies can be misaligned and can lead to potentially large misallocations of resources. Coordinated macroeconomic policies that would prevent such misalignments would be of considerable benefit.

As has been emphasized in earlier chapters, the integration of financial markets increases the risk that shocks originating in one country will be rapidly transmitted throughout the world. Reducing the risk of a financial crisis or limiting its adverse effects, should it develop, is a third kind of gain that may be achieved from the coordination of macroeconomic policies. Action by the central banks of the major industrialized countries following the October 1987 market crash is a case in point. That action successfully brought about a coordinated immediate decline in interest rates, which was widely credited with limiting the adverse effects of the crash.

That there are benefits from the coordination of macroeconomic policies is clear. But what is also clear is that such coordination is no substitute for well-directed domestic policies. The benefits from coordination are more likely to be found in a more stable international financial system, which itself promotes growth in incomes and employment, than in a direct impact on income and employment themselves. But coordination here, as in other spheres of economic activity, is no easy task. There are some important forces at work that limit the extent of coordination that can be achieved.

The Limits to International Policy Coordination

Improved coordination of monetary and fiscal policies entails a reduction of domestic autonomy. Indeed, partly for this reason, national governments have been slow to yield autonomy in those areas, even though their effectiveness in macroeconomic management has been reduced in recent years, as internationalization has progressed.

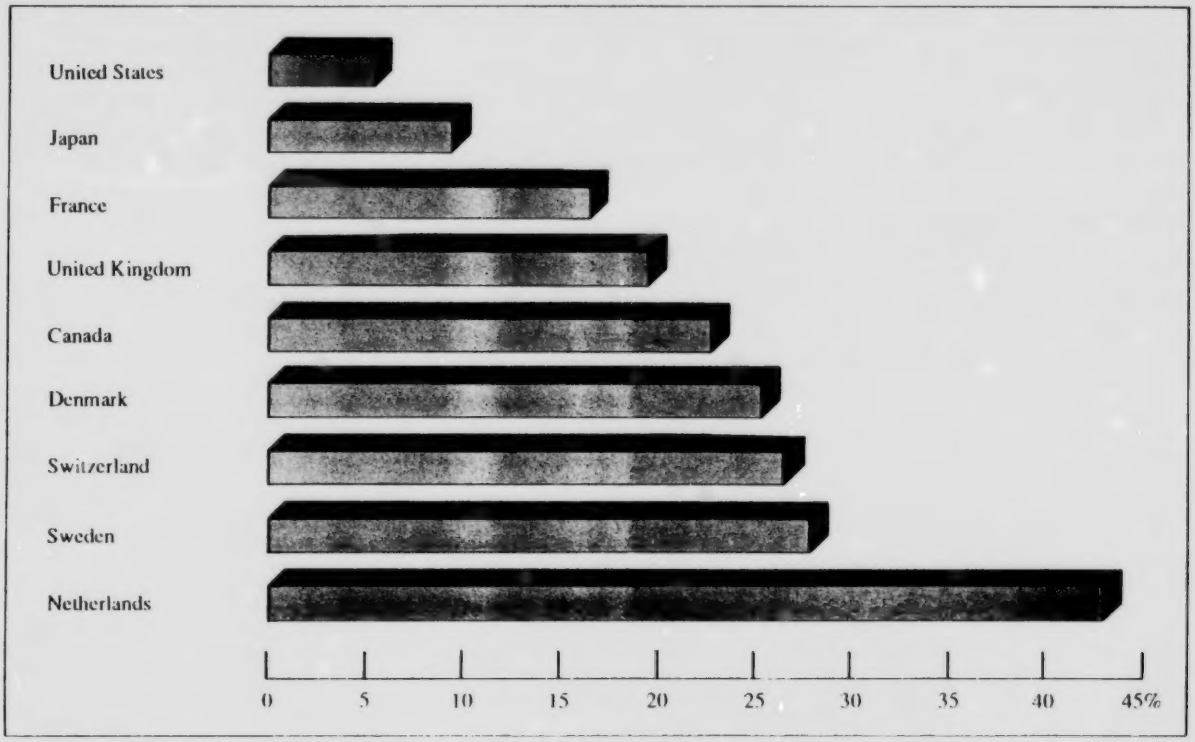
Another factor that may help to explain the slow progress in coordination of macroeconomic policies is that large countries with a relatively small external sector, particularly the United States and Japan, are much more insulated from international shocks than small countries with a large external sector. For example, merchandise exports amount to about 6 per cent of GDP for the United States and 10 per cent for Japan (Chart 6-1). For Canada, exports of goods amount to 23 per cent of GDP; for the Netherlands, the figure is 43 per cent; and for Switzerland, it is 27 per cent. Since trade is one of the major links between countries, the larger the share of exports (or imports) in GDP, the stronger is that link.

A further consideration, particularly for the larger countries, is that, relative to the gains that could be achieved from better domestic policies, the benefits provided by some forms of macroeconomic policy coordination are small. For many countries – in particular Canada and the United States – domestic policies (especially structural policies) that would increase employment in the high-unemployment regions could produce much more significant results. In terms of government priorities, macroeconomic policy coordination would rank relatively low.

It should also be borne in mind that some policies can be adjusted more easily than others. This is particularly true in the United States, where the Congress effectively controls taxation and expenditure. Thus coordinating fiscal policy may be much more difficult than coordinating monetary policy, which is controlled by central banks in almost all countries.

Chart 6-1

Merchandise Exports as a Proportion of GDP, Selected Countries, 1987



SOURCE: Data from the Organisation for Economic Co-operation and Development.

The absence of a world leader is another hurdle in attempts to coordinate policies. During the first 25 years following the Second World War, the United States was clearly *primus inter pares* in the industrialized world. Other countries accepted the U.S. dominance and generally went along with U.S. policies. The strength of this leadership deteriorated in the late 1960s and early 1970s, however, as the United States inflated its currency to finance the Vietnam war effort. This resulted in the floating of exchange rates and in the gradual decline in the dominance of the U.S. dollar as the international currency.

While the U.S. economy is still the largest in the world, its influence today is less strong than it was 30 years ago; moreover, the United States has not been able to formulate macroeconomic policies that would be acceptable to the rest of the industrialized world. As a result, coordination efforts to date have largely been aimed at defusing crisis situations rather than at correcting fundamental economic problems. The persistent imbalances in U.S. government budgets and trade accounts are symptoms of this inability to steer a new course.

As has been noted above, the benefits of coordinated macroeconomic policies, particularly for large countries, are rather small when the impact on output is considered. As financial markets become internationalized and as shocks are transmitted more rapidly through them, however, the benefits of coordination aimed at reducing risks may become greater.

For a medium-sized, open country such as Canada, the lack of a more effective system of international coordination is a source of concern. Given the high degree of integration between U.S. and Canadian financial markets, Canada has much less control over interest rates than most other countries. This leaves Canada little room for autonomous action, particularly with respect to monetary policy. In some respects, this poses some difficulties for Canadian policymakers. While a country of Canada's size will draw large benefits from coordination, relative to those enjoyed by a much larger country, medium-sized nations normally do not have a large voice in international affairs. In any event, it is in Canada's interest to continue to encourage effective ongoing macroeconomic policy coordination.

Conclusion

Throughout this report, many of the benefits that have been, or could be, obtained from the globalization of financial markets and from financial innovation have been identified. In many areas, the risks faced by either the market participants or the world financial system have increased. In many cases, if those risks are not properly managed, they could outweigh the benefits. Risk management cannot be left solely to individual nations regulating markets within their own jurisdictions. Here cooperation and coordination are required. They are also required to provide a favourable macroeconomic environment. Indeed, in most areas there has at least been some improvement in cooperation. But as the dual processes of globalization and financial innovation continue, the need for more cooperation and coordination increases. It is a moot point whether the need is outstripping the progress.

To be sure, all regulation does not have to be coordinated. Even with no coordinated regulation, cooperation among nations and their supervisory bodies would help to improve the management of financial risk in the world. The control of fraud and insider trading, for example, requires a high level of cooperation, whether regulations are coordinated or not. But there are some areas where coordinated regulation and supervision are critical. Here, the results have been somewhat mixed.

At the macroeconomic level, cooperation among developed nations has improved, particularly since the Tokyo Summit, but there has been little progress with respect to the actual coordination of macroeconomic policy. In the sphere of financial markets, there have been some bright spots, most notably in some of the more technical areas. The Basle Concordat on the supervision of banks and the agreement of risk-weighted capital/asset ratios are the major examples. In this area, however, much remains to be done. Little progress has been made with respect to the technical aspects of measuring capital adequacy related to position risk, let alone in obtaining an international agreement. In the securities area, progress is much less advanced than in the banking area, although efforts are under way. Accounting and auditing bodies are still trying to develop adequate international standards.

While there are many obstacles to be overcome, they are not insurmountable. What is required is a concerted effort on the part of nations. Although Canada may have limited power in international forums, because it is so open to the world, it has much to gain by promoting cooperative efforts.

7 Meeting the Challenges

Internationalization and financial innovation have proceeded rapidly during the 1980s. They have been accompanied by a shift from traditional bank lending to securities-related transactions. They have opened up additional opportunities for both producers and users of financial services by providing access to new geographic markets, increasing portfolio diversification, widening and diversifying the borrowing base of many corporations, expanding business opportunities for financial institutions, and making it possible to improve risk management – both for those who seek protection and for those who wish to profit from risk-taking.

But globalization and financial innovation also involve perils. For many market participants, they have increased the position risk associated with movements in exchange and interest rates, and they have introduced new credit risks. Perhaps most significantly, they have reduced the transparency of financial transactions, making it difficult to determine whether the international financial system in the 1980s is more vulnerable or less vulnerable than it was in the 1960s or the 1970s. And while international cooperation aimed at lowering the risks is more advanced in banking than in the securities field, much remains to be done in both areas.

Canadian borrowers have made extensive use of the international financial markets, attracted by the aggressive pricing, the diversification potential, and the quality of the services provided. However, Canadians have used new financial products more selectively than their counterparts in the United States or Europe (although in the latter case, the use of those instruments is a recent phenomenon). Moreover, the benefits of internationalization and financial innovation have so far been available only to large borrowers and investors. The retail market has been largely excluded, which raises important issues of public policy about the accessibility of financial services to different groups of Canadians.

As for Canada's financial institutions, they are playing a smaller role than might have been expected in what would appear to be their natural niche. Globally, they are losing out to the competition. At the same time, Canada's borders are being opened to foreign banks and securities firms. These developments illustrate how much tougher competition has become in this increasingly integrated environment; and, in turn, they give rise to questions about the kinds of steps that may be needed to strengthen the competitiveness of Canadian-controlled institutions. For example, should Canadian institutions become much larger in order to compete effectively? Can they do so without jeopardizing domestic competition? Are new sources of capital needed to enable Canadian financial firms to expand? Where would the capital come from?

The forces at play in international markets also have a bearing on the solvency of Canada's institutions and the stability of our financial system. In particular, the concerns about reduced transparency lead to questions about Canada's current fragmented approach to regulation and the limited degree of cooperation between the various supervisory authorities.

Thus the forces unleashed by globalization and financial innovation have had a direct influence on the three major factors of efficiency – namely, competition, accessibility, and solvency. The challenge is to seek the appropriate balance between competition and accessibility, on the one hand, and solvency and confidence in the system, on the other, in the new global context. A concerted effort among nations is required to achieve such a balance, since not all problems can be resolved through domestic policies alone. At the same time, Canada's domestic regulations also need updating. With or without international cooperation, globalization and innovation will continue, and Canadian institutions, investors, and borrowers will be affected. Should Canadians fail to harness the benefits, and minimize the costs, of these developments, they will have to pay a higher price in the long run, especially since many of the required domestic policies are not dictated solely by developments abroad but address some important domestic issues as well.

While most of our recommendations are addressed to governments, some are also directed at the financial community itself, at businesses, and, more generally, at investors and borrowers. In order to take advantage of the new opportunities and to minimize the risks that they entail, there must be a joint effort by government and the private sector.

One dominant characteristic of the world economy of the 1980s is the intensification of global competition. That

phenomenon is even more evident in the financial area. Global competition brings many benefits – by increasing the efficiency of financial institutions and markets, by broadening the range of financial services available, and by lowering their costs. The Council's recommendations are intended to enable Canada's financial markets to benefit fully from that new competitive environment.

At the same time, the dangers of unbridled competition must also be acknowledged. Safeguards must be put into place to support the continued solvency of our institutions, to strengthen the stability of markets, and to protect the consumers of financial services. Several recommendations are aimed at achieving those goals.

Some of the recommendations, particularly those dealing with the accounting or assessment of risks, may appear to be somewhat technical. Their scope is more than technical, however: the recommendations are part of a new approach designed to deal with the new financial order. In other words, they are a recognition of the increasingly global nature of the financial-services industry, and they can be best viewed as integral to the search for a new equilibrium between competition and stability on both international and domestic markets. The areas covered by the recommendations are highlighted in the box.

Measures at the Domestic Level

Streamlining the Regulatory Apparatus

If Canada is to meet the challenges posed by the need to improve the overall efficiency of its financial system in the light of recent domestic and international developments, it must first put its own regulatory house in order.

The evolution of Canadian financial regulations reflects the divided constitutional authority in that area, which has resulted in competitive regulation by two levels of jurisdiction. This two-tier system has probably caused changes to occur more quickly in some cases than might have been the case under a single jurisdiction. On balance, the outcome has been an enriched system serving the multiplicity of financial needs of Canadians.

That system nonetheless has a number of weaknesses. Competitive regulation adds to the costs of financial institutions and makes it difficult for firms incorporated under different jurisdictions to compete on equal terms across the country; and recent market developments have given rise to growing concerns about the ability to maintain solvency standards. The large increase in the number of foreign participants in the Canadian market, the growing international activities of Canadian-controlled firms, and the proliferation of new financial instruments, with their combined effects on transparency, have all contributed to these concerns.

Against this background, a lack of information-sharing between the various supervisory authorities in this country and inadequate levels of coordination of regulation and prudential supervision are impediments to improving the efficiency of Canada's financial system. In *Competition and Solvency*, the Council stressed the urgent need to harmonize the various systems of financial regulation and prudential supervision across the country.

In delaying action on this front, Canadians would be running counter to world trends. Regional economic blocs are attuning themselves to the globalization of financial markets by harmonizing national regulatory and supervisory systems in the financial arena. Thus Canadians cannot ignore the competition from abroad, particularly from the United States and Europe. Accordingly,

1 We recommend that the federal and provincial governments work together to enhance the compatibility of financial regulation throughout Canada. That harmonization should pertain to such issues as investment powers, capital requirements, related-party transactions, and the distribution of financial products.

Inconsistencies in Canadian financial regulations are found between different jurisdictions, as well as between different categories of institutions that are involved in similar operations but are governed by different statutes within the same jurisdiction. All around the world, the models of financial regulation range from multijurisdictional systems to more unified or even unitary systems (see box). But wherever regulation is fragmented, the recent trend has been towards increased coordination and harmonization.

Canada has much to learn from the experiences of other industrialized countries. In an increasingly globalized world, there is a need for a better-harmonized regulatory and supervisory apparatus, but Canada's constitutional arrangements and political realities – where each jurisdiction guards its prerogatives and nurtures its own institutions – place some practical limitations on the achievement of that objective. Despite past attempts by the federal government and despite appeals by some provincial regulators and the Investment Dealers Association, a national securities commission has not been created. Even the establishment of the Canadian Payments Association met with some difficulties, because many saw it as the threat of a veiled takeover by the federal authorities.

Road Map to Recommendations

Focusing on Canada, first, measures are proposed to:

- *Streamline the regulatory apparatus and enhance domestic cooperation.* The main issues addressed here are: the insufficient compatibility of the regulation of financial institutions between the different jurisdictions in Canada and the insufficient level of cooperation in prudential supervision (Recommendations 1-3). — Strengthen competition, accessibility, and solvency

- *Remove domestic barriers to internationalization.* One important barrier is the fiscal constraint on foreign investment by pension plans (Recommendation 4).

- *Provide a framework for the entry of foreign financial institutions.* A choice must be made between national treatment and reciprocity (Recommendation 5).

- *Strengthen Canadian-controlled financial institutions.* The issue here is to balance the minimum size needed to compete successfully against concerns about market and asset concentration (Recommendation 6). — Mainly strengthen competition and accessibility

- *Remove barriers to innovation and encourage the development of securitized business loans.* This involves amending existing legislation to allow explicitly for the use of futures, options, and swaps. Because of the potential of securitized business loans as vehicles for strengthening the financing of small and medium-sized businesses and as instruments for financing regional development, and in view of the existing barriers to the development of such instruments, government may need to be more proactive in respect of this one particular area (Recommendations 7-10).

- *Enhance the solvency of financial institutions through reporting capital requirements and supervision.* In particular, this involves tightening the treatment of off-balance-sheet commitments and position risk, establishing risk-weighted capital requirements for all institutions, requiring that foreign institutions operate in Canada through subsidiaries, and further developing existing safety nets (Recommendations 11-15). While recognizing some potential for strengthening financial institutions through commercial links, and in the absence of clear lessons to be had from foreign experience about the effect of allowing commercial/financial links, we believe it is preferable to err on the side of stability (Recommendation 16). — Strengthen solvency

On the international front, measures are proposed to:

- *Take advantage of the opportunities offered by internationalization.* This involves negotiating with foreign governments and in international forums for the removal of the remaining barriers to internationalization (Recommendations 17 and 18). — Strengthen competition and accessibility

- *Reduce the risks of internationalization and innovation and increase the transparency of financial systems.* This involves increased international cooperation in supervision and better sharing of supervisory responsibility – particularly in the securities area – the development of international accounting standard, for on- and off-balance-sheet items, and the harmonization of capital requirements for international banks and securities firms (Recommendations 19-23). — Strengthen solvency

Similar practical and political limitations also exist in Europe. Indeed, Canada, with its 10 provinces, is in some respects not much different from the 12 members of the European Community. The principles of minimal harmonization and mutual recognition that are being introduced in the Community could apply as well in Canada. Harmonization here would involve an agreement on broad principles that would enable financial institutions to operate from coast to coast in accordance with mutually recognized safety standards while allowing the provinces to maintain differences with respect to specific aspects of the legislation attuned to local needs.

Foreign Regulatory Systems

The regulatory arrangements in place in Japan, France, the United Kingdom, and the United States, as well as the regime proposed for the European Community, range from unified systems to multijurisdictional frameworks.

In Japan, a unified system prevails. There, a single government department – the Ministry of Finance – is involved in the regulation of both banks and securities firms through three main bureaus that operate with a degree of autonomy, and supervise the domestic business of banks, their international and foreign-exchange business, and the activities of securities firms, respectively.

France is another country with a relatively unified regulatory framework. The Ministère des Finances plays a major role in the regulation of banks and stock exchanges. Investor protection is handled by the Commission des Opérations de Bourse (COB), which oversees disclosures and deals with issues such as insider trading. The Chambre Syndicale – the executive body of the Compagnie des Agents de Change – looks after the orderly functioning of the markets, enforces regulation, and manages the compensation fund set up to protect the clients of member firms. In 1988, a government commission (the Deguen Commission) recommended that a joint committee of the Ministère des Finances, the Banque de France, the COB, and the clearing houses be given a mandate to analyse the links between the various segments of French financial markets and to ensure the consistency of the regulation of these segments.

In the United Kingdom, securities firms and banks fall under two different government departments – the Treasury and the Department of Trade and Industry. Under the general direction of the Treasury, the Bank of England sets rules and supervises the banks and other institutions that are involved in the wholesale money market. Firms that are engaged in securities activities are supervised by self-regulatory organizations under the Securities Investment Board (SIB) and by this Board itself, which reports to the Department of Trade and Industry. The concept of lead regulator has recently been established, however, with a view to avoiding duplication and ensuring consistency; under this new regime, the Bank of England takes responsibility for the banks and the SIB, for securities firms. In the supervision of the securities activities of banks, the Bank applies SIB rules.

At the other end of the spectrum, the United States and the European Community are examples of multijurisdictional systems. In the United States, banking and securities activities fall under two different jurisdictions. The banking industry itself operates under a dual state and federal system. The Federal Comptroller of the Currency, the Federal Reserve Bank, the Federal Deposit Insurance Corporation (FDIC), and state banking departments are all involved in the supervision and regulation of banks. The regulatory body for most securities activities is the federal Securities and Exchange Commission (SEC). Individual stock exchanges also play a role, however, and the Commodity Futures Trading Commission (CFTC) regulates trading in currency and interest-rate futures. States are responsible for the registration of brokers, the licensing of dealers to sell securities, and the prevention of fraud. To foster much-needed harmonization, the U.S. Report of the Presidential Task Force on Market Mechanisms (the Brady Report), which dealt with the October 1987 market crash, recommended that a formal link be established between the Federal Reserve Board, the SEC, the CFTC, and the various stock exchanges. In addition, there has been a move towards the unification and consolidation of prudential supervision and regulation in an attempt to deal with the severe financial difficulties encountered by the savings-and-loan industry. The Federal Home Loan Bank Board – the body that regulates the savings-and-loan institutions (also known as "thrifts") – has been placed under the direct responsibility of the Treasury. The bankrupt Federal Savings and Loan Insurance Corporation – the insurer of deposits in the thrifts – has been attached to the FDIC, which insures bank deposits. The FDIC has also taken over the management of a number of thrifts facing serious financial difficulties.

The European Community provides an interesting experience. As long as its leaders espoused the philosophy of uniformity and centralization – as expressed in the 1957 Treaty of Rome – nothing much happened, because agreement could not be reached on a common, centralized system. The situation began to change with the adoption of the Single European Act in 1985, which marked the shift to a dual goal of "minimal harmonization" and "mutual recognition." This new approach recognized the individuality of each member country. It led to the establishment of minimum standards – such as uniform risk-weighted capital requirements and liquidity and solvency ratios – but allowed for differences in investment powers and recognized the supervisory and regulatory authority of the jurisdiction of incorporation.

The harmonization of regulations governing investment powers, capital requirements, related-party transactions, and the distribution of financial products would ensure equal competitive opportunities for all financial firms, regardless of the jurisdiction of their incorporation or of the broad category of institutions to which they belong. For example, an Ontario mortgage-loan company would be on an equal competitive footing with a Quebec-based trust company. Agreement on minimum standards on those issues would also ensure that excessive risk-taking or fraudulent activities would not slip through any loopholes in the supervisory systems.

Coordination is nowhere more imperative than in the area of prudential supervision. The presence of different criteria and the lack of information-sharing systems could cause losses to investors, disrupt the efficient functioning of the financial system, and jeopardize confidence in the integrity of its members. Accordingly,

2 We recommend that the federal and provincial governments coordinate the prudential supervision of Canada's financial institutions.

A first step would be the simple sharing of information between different jurisdictions. The scope of that information should include the results of regular or special examinations of financial institutions by, or on behalf of, the supervisory authorities; changes in the conditions of registration; and legal or disciplinary actions taken against any institution.

The sharing of information will not be easy to implement. It will require that the different jurisdictions develop confidence in each other, in the manner in which the information will be used, and in the quality of the information produced. Some steps have already been taken in that direction. An agreement signed in October 1988 by the four western provinces sets criteria for the sharing of information on financial institutions, thus addressing the confidence issue. This document served as a basis for an agreement reached by all 10 provinces in January 1989.

But beyond this, there should also be confidence in the quality of the prudential supervision of other jurisdictions. That is why coordination cannot be limited to the exchange of information but must extend to the standardization of the criteria of financial solvency, the development of early-warning systems, the level of capitalization, and the examination of financial firms.

To facilitate the implementation of the two previous recommendations,

3 We recommend that a formal organization of independent provincial and federal regulators – including the federal Office of the Superintendent of Financial Institutions, the Bank of Canada, the provincial securities commissions, and provincial regulators of financial institutions – be established to coordinate the prudential supervision of financial institutions and the efforts to harmonize financial regulation throughout Canada.

Some formal mechanisms of cooperation do exist. Examples in the life insurance and securities industries were discussed in Chapter 2. The intergovernmental agreement on information-sharing is another example. But those mechanisms are not yet fully entrenched, nor do they cover all segments of financial activity. In addition, there are no formal links between the regulators of the different major functions; for example, there is no formal mechanism bringing together the regulators of banks and those of securities firms.

The proposed organization would offer a forum for periodic meetings of the regulators. Its work would be supported by various committees and a permanent secretariat. The organization would be a forum where independent regulators would discuss their different viewpoints and work out agreements. These would aim at establishing a minimal harmonized regulatory framework, facilitating coordinated supervision, and providing institutions with equal competitive opportunities from coast to coast, as outlined in Recommendation 1.

It would be incumbent upon provincial legislatures and the federal Parliament to translate the agreements into law whenever necessary. And it would be incumbent upon provincial and federal regulators to enforce the law.

The proposed organization is the mechanism by which Canada's regulatory framework would move towards a "minimal harmonization" and "mutual recognition" approach. It would be an appropriate alternative to a single regulatory authority, and it would not entail the lengthy and costly constitutional wrangling that would almost certainly accompany the establishment of a unitary system. It also would give individual authorities enough freedom to develop innovative approaches to regulation.

Armed with a consistent regulatory framework and a more uniform supervisory apparatus, Canadians would be in a better position to take advantage of the opportunities created by the globalization of markets and financial innovation, to improve competition and access within the financial system, and to enhance the solvency of institutions operating in Canada.

Improving Competition and Access

Competition and access within the Canadian financial system can also be improved by such means as:

- the removal of the remaining barriers to the participation of Canadians in international markets;
- the opening-up of Canadian markets to foreign firms;
- the strengthening of domestic institutions; and

- increased participation in the process of financial innovation.

Removal of Barriers to Internationalization

A first step in achieving the potential benefits from the globalization of financial activities would be to remove the remaining restrictions on the ability of Canadian institutions – registered pension plans, in particular – to invest abroad. Additional benefits would also be realized from having the institutions book their international business in Canada.

Investment Abroad by Pension Plans — Private pension plans in Canada, which include trusteed pension plans and registered retirement savings plans, are currently limited in their power to invest in foreign securities by the Income Tax Act. That legislation imposes a penalty tax on the portion of foreign investment which exceeds 10 per cent of the book value of the investing fund's total assets, although it allows that 10-per-cent limit to be exceeded by three dollars for every dollar invested in qualifying venture-capital projects. Not only are pension funds large (Table 7-1), they are also important investors in corporate securities. As a group, trusteed pension plans held $34 billion in corporate shares at the end of 1985. This amounted to some 11 per cent of all shares held by Canadians and to about 41 per cent of all shares held by Canadian corporations and institutional investors. Trusteed pension plans also held $10.6 billion in corporate bonds, or about 11 per cent of the total outstanding.

The assets of trusteed pension plans are invested as follows: 25 per cent in Canadian common shares, 8 per cent in Canadian corporate bonds, and 6 per cent in non-Canadian shares; the rest are mainly held in mortgages and government securities. Almost all of the foreign assets consist of shares. Because of the quality tests incorporated in the rules applying to most pension funds, which restrict their investments to the debt or equity of highly rated corporations, and because of the smaller size of the domestic economy, Canadian pension funds often experience difficulty in diversifying their equity portfolios with Canadian equities alone; for that reason, a number of them invest as much as they can in foreign equities. That is particularly true of the funds of federal crown corporations and large incorporated businesses.

The restriction on foreign investment imposes a cost on pension funds and, ultimately, on their members and sponsors, inasmuch as it prevents them from achieving the highest possible risk-adjusted rate of return through the international diversification of their portfolios. At the same time, the restriction probably does relatively little to improve the financing of those categories of Canadian business that have fewer financing alternatives. Because of the quality tests that must be met, pension funds generally invest in large corporations, which have relatively easy access to domestic and international capital markets and therefore have the fewest problems in securing adequate financing.

The removal of the 10-per-cent restriction would not necessarily lead pension funds to replace the Canadian corporate securities in their portfolios with foreign securities. The experience in the United States and the United Kingdom, where there are few restrictions on the powers of pension funds to invest abroad, provides an indication of what could happen if the Canadian restrictions were lifted. Both U.S. and U.K. pension funds hold almost half of their assets in equities, compared with 25 per cent for Canadian funds. Funds in the United States hold very few foreign assets, probably because they can diversify their holdings within their own country, but foreign securities make up about 15 per cent of the assets of British pension funds, possibly because the smaller size of the British economy offers them fewer opportunities to diversify domestically. Given the even smaller size of the Canadian economy, the removal of the tax penalty on foreign investment might well encourage Canadian pension funds to invest in foreign securities more than U.K. funds do. The increased holdings of foreign equities would be at the expense of government bonds and mortgages.

It is clear that the 10-per-cent limit can no longer be justified by the need to provide equity financing to Canadian corporations. However, the removal of the existing limit would be an important change, which should be implemented in successive steps and should be accompanied by other measures that would enable pension plans to manage their increased foreign investment prudently. Accordingly,

4 We recommend that the Income Tax Act be amended to provide for the gradual removal of the limits on investment abroad by pension funds and that the impact of this relaxation be reviewed periodically.

Extensive investment abroad by pension plans would create the need to hedge foreign-exchange risks, as their liabilities are denominated in Canadian dollars. Most Canadian pension plans currently do not use options and futures. If they maintained this policy in a less-restricted regulatory environment, that could severely limit the international diversification of their portfolios, as well as the benefits from such diversification. In the United Kingdom, pension plans use some of the newer instruments, particularly forward rate agreements, to hedge their foreign-exchange

Table 7-1

Assets, Main Functions, and Foreign Activities of Selected Groups of Canadian Financial Institutions, 1987

	Year-end assets	Main functions	Degree of participation in international markets
	(Millions of Canadian dollars)		
Chartered banks[1] Canadian-controlled	369,304	Deposit-taking Lending (personal, business, mortgage) Export and import financing	Extensive
Foreign-bank subsidiaries	43,229	Deposit-taking Lending (mortgage and business) Export and import financing	Extensive, through the parent bank
Trust companies	89,958	Trustee services Deposit-taking Lending (mortgage, some personal)	Limited to a few firms
Credit unions and *caisses populaires*	68,643	Deposit-taking Lending	None
Mortgage loan companies	77,460	Mortgage lending Deposit-taking	None
Life insurance companies	120,224	Life insurance (individual and group) Annuities Mortgage loans Investment in government and corporate securities	Extensive
Trusteed pension plans[2]	143,562	Pension plans Investment in mortgages	Limited
Investment companies[3]	29,165	Investments	Limited
Property and casualty insurance companies	25,341	Property insurance Casualty insurance	Limited
Financial corporations	20,191	Lending Financial leasing	None
Investment dealers	14,732	Brokerage and underwriting Some deposit-taking	Extensive

1 Includes the worldwide assets of the banks but excludes the assets of mortgage loan companies associated with Schedule A banks.
2 Assets shown at book value for plans in the private and public sectors.
3 Investment companies include mutual and closed-end funds.

SOURCE Statistics Canada, *Financial Institutions: Financial Statistics*, Cat. 61-006, third quarter 1988; *Trusteed Pension Funds: Financial Statistics*, Cat. 74-201, 1987; and *The Canada Gazette*, Part 1 (25 February 1989), Supplement.

risks; some futures and options are also used. To benefit fully from the removal of the 10-per-cent rule, the use of hedging instruments by Canadian pension funds would also have to be allowed.

Some analysts worry about the impact on financial markets of the removal of the 10-per-cent rule. In that context, we note that the annual net revenues of trusteed pension funds – which are equal to over 12 per cent of their assets, on average – are large enough for a significant increase in the limit to be accommodated annually without the need for the plans to sell off any of their existing assets. Moreover, if by investing abroad, pension plans do divert funds that would have otherwise been available to domestic borrowers, those affected are likely to be large corporations and governments, which already have access to international markets. Nevertheless, the fact remains that in the very short run, some borrowers in the domestic bond market – the federal government, in particular – might be adversely affected. We therefore suggest that the limit be raised gradually – by about 2 or 3 percentage points annually. The impact of that change should be assessed every year, and it should be reviewed comprehensively by the Department of Finance when the ceiling has reached the 20-to-25-per-cent range.

The removal of the 10-per-cent limit should not be seen as a means of increasing investment in the foreign affiliates of the corporations that sponsor pension plans. Under current regulations, pension plans are generally limited to investing no more than 10 per cent of their assets in the marketable securities of either the sponsor or its affiliates. That rule applies equally to foreign and domestic affiliates. In addition, the by-laws adopted by many pension plans prohibit them from investing in the securities of their sponsor or its affiliates.

International Banking Centres — Another step towards bringing the benefits of globalization to Canada is to encourage institutions to book their international business in Canada. Financial institutions often locate their international operations on the basis of the taxation system in place in various countries – including, of course, exemptions from taxation. In a world where activities are becoming more integrated on a global scale and where financial institutions compete on the basis of comparative advantages, the tax system can be a distorting factor, especially when it is used to subsidize certain activities by exempting them from taxation on income and other sources of wealth. Many countries provide such indirect subsidies for the international operations of financial institutions located within their jurisdiction. This results in a blurring of comparative advantage. The ideal solution would be to do away with those indirect subsidies, but we are a long way from achieving that goal. It is thus understandable that Canada has been attempting to match the subsidies accorded by other countries in a bid to attract, or keep, this sort of activity. International banking centres, which exempt the income from international operations from taxation, constitute just such a subsidy.

Although Canada has accepted the concept of IBCs, they cannot, under the law as it stands, be extended to locations other than Montreal and Vancouver. This may result in opportunities being lost. So far, little additional activity has been generated in Montreal or Vancouver by the designation of those cities as IBCs. This contrasts with the situation in the United States, where there are no federal constraints on the location of international banking facilities (IBFs), which are similar to IBCs. In 1987, more than half of the external assets of banks in the United States were booked in IBFs. In a more flexible environment – one in which financial centres could be established anywhere in Canada – market forces would bring them into being in additional locations.

Those who favour allowing such facilities to be established anywhere in the country argue that the banks would locate them where they would operate most efficiently and that Canada would then derive the greatest benefits from IBCs. Since the international divisions of most Canadian banks are located in Toronto, efficiency consideration would most likely result in IBCs being located in that city. In the United States, 80 per cent of the assets of IBFs are booked in New York.

However, the establishment of IBCs in Montreal and Vancouver has a symbolic value in strengthening financial activities in those cities. In a country such as Canada, where the population is dispersed across broad areas, it is important to have strong regional financial centres; restricting IBCs to Montreal and Vancouver is one way of contributing to this goal. Given the ability of modern communications technology to transmit data over long distances, the efficiency loss implicit in this restriction may not be too great.

Since IBCs have only been available in Canada for a short time, more time will be required before an adequate assessment of their effectiveness can be made.

Entry of Foreign Institutions

Maximizing the benefits of internationalization means not only bringing back international activities from foreign countries and attracting new ones, but also allowing the entry of foreign institutions into Canadian markets while

facilitating the access of domestic institutions to foreign markets. Accordingly,

5 We recommend that the "right of establishment" be granted to foreign financial firms in all segments of the financial industry, subject to the condition that Canadian institutions be given access to markets in the country of origin of the foreign institutions. Foreign institutions operating in Canada, and Canadian institutions operating abroad, should be subject to "national treatment." However, limits and exceptions to national treatment could be imposed when justified by concerns about the stability of the financial system and the conduct of domestic policies. These limits should be the subject of negotiations with the nations involved.

Two different approaches – "national treatment" and "reciprocity" – have governed the operations of foreign institutions in domestic markets. Under the national-treatment approach, foreign institutions operating in a country must be given the same treatment as that country's domestic institutions. In addition to being a basic rule under the General Agreement on Tariffs and Trade (GATT), the national-treatment concept is used by the Organisation for Economic Co-operation and Development (OECD) in its code on international investment. It also underlies the free-trade agreement between Canada and the United States, and represents the approach that is generally being followed by the Canadian government in its negotiations with other nations.

Under reciprocity, two countries agree to let each other's financial institutions operate in their own territory at conditions that are equally favourable for all. Because reciprocity is based on bilateral agreements (initially, at least), its application in Canada could result in similar institutions from different countries having different powers and operating in different sectors of the Canadian financial industry, depending on the powers granted to Canadian-controlled institutions in their home country. For example, under a narrow application of reciprocity, Japanese banks would not be allowed to enter the field of securities trading in Canada, whereas British and West German banks would be given such powers. Thus the administration of reciprocity could add complexity to the process of prudential supervision. On the other hand, under the national-treatment approach, Canadian financial institutions might be unable to engage in all the activities that foreign institutions can perform in Canadian markets.

National treatment often appears unfair on the surface, especially when domestic regulation is more liberal than that of foreign markets. The Canada-U.S. Free-Trade Agreement, which is based on the principle of national treatment, provides U.S. subsidiaries in Canada with broader powers – particularly in the securities field – than they have in their own country. Thus Canadian financial firms operating in the United States face more restrictions than U.S. firms dealing in Canadian markets. A trend towards some convergence – or at least some harmonization – of regulation has recently been evident, however. The Glass-Steagall Act is slowly giving way to a more liberal stance in this area. Thus the Federal Reserve, in a decision handed down in January 1989, authorized five large U.S. bank holding companies to engage in limited securities underwriting and dealing; that decision was immediately applicable to corporate bonds and will be extended to corporate equities after a review of the subject, to be held a year later. By applying to the Federal Reserve Board, Canadian banks should be able to benefit from similar treatment.

With greater international harmonization of regulation, the differences between national treatment and reciprocity would narrow. While reciprocity appears to be a better bargaining tool, national treatment is not only much easier to apply, but it recognizes the unilateral benefits of foreign entry with respect to access and competition.

While foreign entry brings important benefits to Canadian investors and borrowers, the reciprocal access to foreign markets given to Canadian institutions will be of significant benefit to their business growth and development. In effect, the new regime would be an exchange of "national treatment," or the "reciprocity of national treatment." Foreign financial institutions would be allowed to establish themselves in Canada only if their home country allowed the entry of Canadian institutions and were prepared to give them the same treatment as that afforded indigenous institutions.

Many countries have adopted the principle of reciprocity of entry, and even "reciprocal national treatment." Reciprocity is required, for example, by France and West Germany before foreign banks are allowed to operate in their national territory. It is also a condition that non-EEC countries will have to meet in order for their institutions to be admitted, after 1992, into the single European market in the banking, securities, or insurance industries.

The obligation to extend national treatment does not mean that the treatment must be identical in all respects. A party may accord different treatment for legitimate purposes, such as consumer protection or domestic control over a key industry.

While Canada now allows foreign entry into the banking, securities, and insurance fields, it does not grant full

national treatment. The assets of the subsidiaries of non-U.S. foreign banks are limited to 12 per cent of the total assets of Canadian banks; foreigners other than U.S. nationals cannot own more than 25 per cent of the capital stock of Schedule A banks and Canadian life insurance companies; non-U.S. foreign banks need ministerial approval in order to open more than one branch.

The entry of foreign financial institutions into Canada brings benefits to Canadians. The maintenance of a strong domestic sector can be achieved without restricting the entry of foreigners and thus reducing those benefits. Moreover, limits to national treatment could act as a disincentive for foreign financial institutions wishing to invest in Canada the amounts needed to increase competition and to introduce new financial instruments and practices. We believe, however, that the removal of these restrictions to national treatment should be subject to bilateral negotiations with each country involved.

Strengthening Canadian-Controlled Institutions

Firm size is often considered a necessary condition for strength: the larger the firm, the broader its capital base is likely to be and the better is its ability to bear risks. Larger firms also have better prospects for diversifying their assets and liabilities, a greater capacity for distributing and placing security issues, and a strengthened staying capability in markets when the competition gets tougher and profit margins begin to shrink.

On the other hand, policymakers are often concerned that the emergence of large financial institutions will lead to a concentration of power and a concentration of markets. But concentration should not be assessed solely from a domestic perspective. A concentrated domestic financial system that is open to foreign competition may well behave as a competitive industry. By focusing too narrowly on the degree of concentration in domestic markets, policymakers could endanger the ability of domestic firms to compete internationally and to provide domestic customers with a wide range of financial services. Accordingly,

6 We recommend that when the regulatory authorities assess the degree of competition and concentration in specific financial markets and when they evaluate the potential impact of mergers, acquisitions, and alliances, international sources of competition be taken into account as well as domestic ones.

Size is considered an important factor in the competitiveness of firms in all sectors of economic activity. Recent years have witnessed an increasing number of mergers in all sectors of economic activity, which industry representatives have justified by the need for a minimum size to meet the competition successfully.

Domestic concentration is less of a problem in the wholesale market, where Canadian- and foreign-controlled financial institutions compete head on and where Canadian borrowers have direct access to foreign sources of funds. According to the federal Competition Act, the activities of foreign firms should be taken into consideration when assessing the degree of competition in domestic markets. But it is also important to acknowledge that, when Canadian borrowers have direct access to foreign markets, that increases competitive pressures at home. Concentration in the retail market should be of greater concern, however – at least in the near future – as that market has not yet been touched by the forces of internationalization. Yet the securitization of loans could contribute to increased competition in the retail market – a point to which we shall return later on.

Financial Innovation

Innovation is another source of industrial strength. Financial innovation has indeed contributed to increased competition and to the opening-up of markets. Given the fact that Canadians have been less prone than their U.S. and European counterparts to use innovative financial instruments, the question arises whether government should encourage that process. Two schools of thought exist in that regard.

The "permissive" approach argues that markets should be left alone: inasmuch as the benefits provided by the new instruments outweigh their costs and risks, the private sector will bring those instruments to the market. The proponents of this approach call attention to the number of innovative instruments that have been developed by private-sector institutions, especially by banks and securities firms in the United States. They point out the innovative work of financial specialists and the rush to bring out new instruments in increasing numbers in order to reap, if only for a few months, the profits generated by them. They also stress that it is difficult to advocate the introduction of specific instruments, as their track record is not proven and very little is known about the risks that they carry and the length of their useful life. They argue that public policy should only seek to remove the barriers to the introduction and development of new instruments.

Those who argue in favour of a more "proactive" approach by government note that the benefits of innovation are usually short-lived and that firms therefore have little

incentive to conduct research in this area and to develop and introduce new instruments and practices. That is why, the argument goes, there is a need for governments to take part in the development of new instruments – at least initially, until markets become familiar with them. There are precedents for this. The Bank of Canada contributed to the development of money-market instruments in the 1950s, and the Industrial Development Bank – the forerunner of the Federal Business Development Bank (FBDB) – introduced term loans to businesses. Once other lenders, particularly the banks, caught up with term lending, the FBDB gradually withdrew from this market and remained a lender only to small businesses that had difficulty gaining direct access to the term loan market. Similarly, mortgage-backed securities were developed in the United States by government agencies that have remained very active in that market.

Both the "permissive" and "proactive" approaches have merit, and public policy in Canada should be a blend of both. First, it should aim at removing all barriers, legal and others, that may hinder the introduction of new instruments. Accordingly,

7 We recommend that legislation governing Canada's financial institutions be modified, whenever necessary, to allow explicitly for the use of futures, options, swaps, and other innovative instruments, within the "prudent investor" framework.

The legislation governing financial institutions – i.e., pension funds; trust, loan, and insurance companies; banks; credit unions and *caisses populaires* – is generally formulated in either of two different ways.

In the first instance, the institution can do anything that is not specifically prohibited in the relevant statute. That approach is found in the Bank Act and in most of the more recent legislation, such as the Ontario Pension Benefits Act, the proposed federal trust and loan companies acts, and the Quebec legislation dealing with trust, loan, and insurance companies.

In the second approach, which is found in current legislation dealing with pension funds and with insurance and trust companies at the federal level and in several provincial jurisdictions, the institution can only perform the activities that are specifically allowed in the legislation. A list of the assets that may be held legally is given, generally limiting investment to the "debentures, bonds, stocks, or other evidences of indebtedness" of governments and of financial institutions or business corporations meeting specific earnings tests. These statutes also contain a basket clause allowing the institutions to hold otherwise ineligible assets, with limits usually ranging from 5 to 10 per cent of total assets. Any asset that meets the eligibility requirements at the time of its purchase can then be legally held for its life. There is no legal requirement for the institution to re-evaluate the suitability of assets or to consider the extent of diversification of its portfolio as a whole, except that the legislation usually sets out broad limits on specific asset classes. Assets held under basket clauses are subject to the requirements of prudent investment – a principle that is well established in common law and in the Quebec civil code.

Most of the recently proposed or enacted pieces of financial legislation no longer contain a legal list, and most specifically require prudent-investment standards. Not only must an asset be "prudent" at the time of purchase, but it also must be re-evaluated periodically, as must the status of the entire portfolio of assets with respect to diversification. The newer statutes sometimes set limits on the share of total assets that may be held in the form of specific asset classes. It is not clear, at this time, to what extent the requirement that the whole portfolio be subject to re-evaluation will encourage financial institutions to make greater use of innovative instruments in order to hedge their risk and increase their returns.

Many statutes do not indicate clearly whether new instruments may or may not be used. This has led institutions to shy away from innovative financial products. For example, many pension funds and other financial institutions do not use options and futures to hedge their investment risks, either because they require their "basket" for other assets or because they are unsure whether or not the use of such instruments is allowed. The ambiguity in the legislation should be removed in order to make it possible for all kinds of instruments to be used where appropriate. But the use of the new instruments must remain subject to the notion of prudent behaviour.

The lack of adequate internal mechanisms to control the use of new instruments has been mentioned by many observers as a serious risk factor. It is important to ensure that institutions will not engage in activities for which they have not adopted such control mechanisms. The institutions should have internal rules that clearly spell out the limits on position-taking, by type of instrument, distinguishing between hedging and speculating activities; they should also adopt rules on the mechanisms for reporting to senior management. In addition, procedures are needed to evaluate and price the risks associated with various commitments.

Indeed, many well-established institutions have already adopted such mechanisms – some of them after having suffered heavy losses. As these instruments become more widely used and provide increased flexibility to many more

institutions, it is important to ensure that their potential misuse will not endanger the stability of the financial system. With adequate internal control mechanisms in place, the greater use of innovative instruments will contribute to greater competition and diversification in financial markets and to the provision of a broader range of financial services to borrowers and investors.

A number of businesses and individuals – particularly small and medium-sized businesses and smaller investors – are not familiar with options, futures, swaps, and other new instruments. In Canada, crown corporations have often participated in the dissemination of information. It is a limited but useful task that government can play, and it can be viewed as part of the permissive approach. Accordingly,

8 We recommend that federal and provincial financial crown corporations assist small and medium-sized firms and investors in understanding the role played by new financial instruments.

At the federal level, that task is consistent with what the Federal Business Development Bank has been doing, particularly under its CASE (Counselling Assistance to Small Enterprises) program, which is aimed at helping small and medium-sized businesses solve their financial and non-financial management problems. The FBDB should extend this program to assist firms interested in establishing the internal structure and control mechanisms needed to manage the use of new financial instruments.

In most areas of innovation, government should do no more than remove the impediments to the development of new instruments and disseminate information on the risks and benefits that are attached to them. If appropriate changes were made to the legislation governing the investments of pension plans and life insurance companies in order to clearly allow the use of innovative instruments, trading of financial futures on organized exchanges in Canada might conceivably be successful should these institutions become more involved in such activities.

Securitization of Business Loans — A more active approach is called for, however, in the development of asset-backed securities. That is because the benefits of these instruments extend beyond the main participants – financial institutions, investors, and borrowers. Asset-backed securities have the potential to become a key instrument in financing the development of Canada's regions and in bringing the benefits of internationalization to the retail market, particularly to medium-sized firms.

The securitization of business loans involves a number of activities. Some institutions will be able to perform some of those activities more efficiently than others. With each institution specializing in those activities in which it has an advantage and being paid a fee for the specific service it provides, overall costs can be reduced. Specialization can occur at three levels: risk origination, risk intermediation, and risk holding, which may themselves be subdivided further (see box).

Effective in 1992, new capital requirements will raise the cost of holding commercial loans on a bank's balance sheet, particularly in relation to its other assets (such as mortgages). This could reduce the supply of funds to businesses – small firms, in particular – unless new investors are brought in. Individual loan sales by banks would not be a viable alternative, since the holders of large portfolios, who seek to invest large sums of money, would be unlikely to be interested in purchasing such loans. That is where securitization could play an important role.

Surveys of small and medium-sized businesses in the United States, the United Kingdom, and Canada have revealed that they are particularly concerned about the cost of borrowing and the extent of the knowledge of their business by the officers of financial institutions. The surveys show that large U.S. banks offer lower-cost financing than the smaller local banks but that the latter know their customers better and often require less collateral. The securitization of business loans in Canada might enable the smaller local financial firms, which are well attuned to local needs, to originate loans and yet charge borrowers a rate similar to that of the larger institutions. Securitization could also improve the availability of funds outside urban centres. Local institutions would be able to participate as originators and to sell their loans to packagers for resale to large funds.

The securitization of business loans is a big challenge. A major stumbling block is the lack of homogeneity of these loans. Business loans differ widely with respect to maturity, collateral, interest rates, and the creditworthiness, sector of activity, and location of the borrower, to name but a few factors. This heterogeneity might be overcome either by a guarantee of the principal and of timely payment or, alternatively, by the establishment of norms – with respect to maturity or to collateral, for example – that would impose a greater degree of standardization on business loans. While such standardization would result in fewer loans being tailored to the borrower's financial structure, that is perhaps a small price to pay for the continued availability of financing at better terms and at a lower cost.

Credit enhancement is an important part of the process of securitization of business loans. Different methods of credit enhancement have been used at one time or another in the

Area of Specialization in the Securitization of Business Loans

- *Risk origination* includes the following activities, which require close contact with borrowers and, therefore, an extensive, low-cost distribution branch network and a good information system:

– origination, or the issuing, of a business loan;

– servicing, or the collecting of the payments on the loan, the monitoring of the situation of the borrower, and the taking of remedial action in case the loan goes into default; and

– warehousing, or safekeeping of financial obligations.

Risk originators would basically be commercial banks, trust companies, credit unions and *caisses populaires*, small mortgage loan companies, or more specialized firms, such as finance and consumer-loan companies.

- *Risk intermediation*, which requires skills in packaging deals, an ability to find investors, a large distribution network, and the capacity to absorb losses in the underwriting process, can be subdivided into:

– the packaging of loans – that is, the combining of the assets into a securities pool;

– the selling of asset-backed securities; and

– the setting-up of a trust that will act on behalf of the pool.

Securities firms and investment banks would act as risk intermediators.

- *Risk holding*, which requires the ability to assess the risks associated with financial instruments, to sense or anticipate the future market value of financial assets, and to evaluate and trade off risk exposures, includes:

– the holding of securities or participating shares in a pool; and

– the trading of these securities in secondary markets. Large portfolio holders such as pension funds, life insurance companies, and mutual and investment funds would be risk holders.

securitization of mortgage, car, or business loans and credit-card receivables (see box). One option that has often been used, particularly in the first stage of a program, is for a government agency to provide the investors in the pool with a guarantee of timely payment of interest and principal. Such a guarantee would contribute to the required standardization; it would also exempt the issues from prospectus and registration requirements.

On the other hand, the guarantee would also entail potential costs. The quality of the loans originated for the purpose of securitization could be seriously affected by the guarantee, and any resulting large losses would have to be covered out of public funds. No government guarantee was involved in the securitization of U.S. car loans or credit-card receivables, however. Instead, letters of credit (commitments by banks to cover eventual shortfalls in payments), overcollateralization (the inclusion in the pool of loans of a total

Methods of Credit Enhancement

1 Insurance or letter of credit issued by a private institution.

2 The first losses (10 to 15 per cent of book value) to be assumed by the originator of the loan.

3 Overcollateralization – a larger value of loans included in the pool than the value of shares sold.

4 Issuing of several tranches: a senior and junior security where payments are made first on the senior security.

5 Guarantee of timely payment of interest and principal, with a limit on the total amount that can be guaranteed each year.

value greater than the value of the pool, so that investors would not be adversely affected by defaults on some loans), or both, were used.

Some of the other methods of credit enhancement may turn out to be costly, in the case of business loans. For example, because of the lack of standardization, the determination of the required level of insurance coverage might necessitate an evaluation of the creditworthiness of each borrower. This could be avoided by the setting of norms that business loans must meet to be included in securities pools. The commitment by the originator to cover the first losses – another method of credit enhancement – might defeat the original purpose of securitization, which is to move the loans off the firm's balance sheet. In any event, further research is needed to find the appropriate balance between the various methods of credit enhancement and standardization, based on their costs and their potential negative impact on the securitization process.

If a government guarantee is needed, for example, in conjunction with other methods of credit enhancement, a cap should be placed on the amount that could be guaranteed each year. And an appropriate fee should be charged for the guarantee. While it would be easier to launch a program of business-loan securitization with a government guarantee, we are not persuaded that this would be beneficial in the long run. As already mentioned, standardization could be achieved through the establishment of norms that loans would have to meet to be included in the pool. The norms would impose much-needed discipline in the origination of loans, although they might restrict the volume and types of loans that would be securitized. But in the early stages, that would be a small price to pay in order to ensure the success of the program and to limit the role of government.

Finally, market-making could be undertaken by securities firms or a government agency, or both.

The securitization of business loans, by improving the functioning of domestic capital markets, would help to fulfil two important goals of public policy: it could bring needed financing to businesses – in particular, to small and medium-sized firms; and it could ensure a continuing supply of funds to the regions. If they were sold on international markets, securitized business loans could bring the benefits of globalization to the retail market. The development of this instrument should therefore be actively pursued.

The role that government must play here is that of a catalyst, in order to get the program off the ground. In the United States, the securitization process was launched in 1970 by the federal government and by government-sponsored agencies that introduced the "mortgage pass-through." This had a demonstration effect by showing that securitization does work and can be profitable. Today, the private sector is active in the securitization of mortgage loans. Credit-card receivables and car loans were securitized without government assistance. Because of the specific difficulties involved in the securitization of business loans, however, government agencies in the United States are again playing the role of a catalyst.

In Canada, the experience of the Federal Business Development Bank (FBDB) in term lending and of the Canada Mortgage and Housing Corporation in mortgage lending and insurance shows that government intervention in a developmental role is often viewed as being temporary, until private-sector institutions are willing, and able, to take over. The securitization of business loans would be subject to the same treatment.

Because of the important role it played in the development of business financing, because of its expertise in the area, and because of its branch network from coast to coast, the FBDB is the channel through which the federal government could act as a catalyst in the securitization of business loans.

9 We recommend that the Federal Business Development Bank (FBDB) contribute to the development of a market for securitized business loans in Canada by:

a) packaging loans originated by private lenders into securities pools for sale to investors at a price that would provide a fair market remuneration for all participants in the process;

b) establishing norms for loans to be accepted in securities pools;

c) establishing, in conjunction with private-sector firms, methods of credit enhancement;

d) standing ready, if necessary, to maintain a secondary market in shares of the pool.

The involvement of the FBDB in any or all of the above-mentioned areas should end as soon as the private sector shows its readiness to take over.

While the FBDB is probably in the best position to develop securitized business loans, it should make its newly acquired expertise available to provincial agencies lending to businesses. Accordingly,

10 We recommend that the provincial crown corporations involved in lending to businesses take an active part in the development of securitized business loans.

Enhancing the Solvency of Financial Institutions

Internationalization and financial innovation have done much to improve the services offered to Canadians and to broaden the range of products available to them. In important respects, however, they have also added to the risk of insolvency or loss of stability of the financial system by making it less transparent. It is now more difficult to follow the growing volume of trans-border financial transactions, and the proportion of off-balance-sheet transactions is much larger than it used to be. The regulators, accounting firms, and auditors interviewed by the Council's staff view this lack of transparency as a serious problem. There are a number of steps that can be taken domestically to lessen the loss of transparency and thus maximize the net benefits of increased competition and the opening-up of markets. They include:

- better disclosure by financial institutions;
- better monitoring of the risks that they assume;
- the imposition of capital asset ratios;
- requiring foreign firms to operate through subsidiaries;
- the strengthening of safety nets; and
- limiting the links between financial institutions and nonfinancial firms.

Improved Disclosure

With respect to the first of these steps,

11 We recommend that Canadian financial institutions be required to report to the relevant supervisory authorities, on a quarterly basis, all off-balance-sheet commitments and to provide, on demand, access to information pertaining to the counterparties to over-the-counter transactions such as swaps, options, and futures.

A number of regulatory authorities in Canada have the power to request such information, but they seldom use it. A serious impediment to the effective prudential supervision of financial institutions is the inadequate amount of information on their position and credit risks, largely resulting from the fact that many such risks do not appear directly on balance sheets. A first step would be for institutions to disclose their off-balance-sheet commitments. A second step would be to reveal, if necessary, the identity of counterparties – that is the individual, corporation, or other financial institution with which the institution has entered into a transaction (an interest-payment swap or a futures contract, for example). This type of information is no different in essence than that which is obtained through the selective audits currently performed on the credit files of banks. The disclosure requirement should apply to banks, securities firms, trust companies, and life insurance companies. It would require the establishment of standards of reporting pertaining to the new instruments.

Improved Monitoring

With improved disclosure, the regulatory authorities would be in a better position to monitor the risks assumed by financial institutions. With the development of securitization and the greater participation in securities trading by banks and other institutions, position risk has grown in importance relative to credit risk. Most of the supervision and prevention measures in place are geared to credit risk, however, as in the case of the risk-weighted capital/asset ratios of the Bank for International Settlements. In Canada, the regulatory authorities have generally not attempted to assess the extent of position risk assumed by the financial institutions or to establish methods to control that risk – except in the securities industry, where position risk is taken into consideration in the establishment of capital requirements.

In order to assess and monitor position risk, as well as the risks attached to many off-balance-sheet items, it will be necessary to develop standards and methods to measure them. We recognize that this is a very difficult task and that most institutions do not know how to measure all of these risks. Nevertheless, it is necessary to work towards the development of such standards and methods. Therefore,

12 We recommend that Canadian supervisory authorities set in place methods to monitor the position risk assumed by financial institutions.

This type of monitoring might require taking into account tradable assets and liabilities on and off an institution's balance sheet, the extent to which assets and liabilities are matched, the past variability in the price of the assets, and its expected future variability.

Capital Requirements

The disclosure and monitoring of risks are only a first step. Risk-taking must also be managed without impeding competition. We believe that capital requirements should be established for all financial institutions on the basis of an assessment of the risks that they assume. But Canada cannot move alone. First, in a globalized environment, the stability of the Canadian financial system depends increasingly on the solvency of the large foreign institutions. Their risk-taking should also be managed adequately. Secondly, if the requirements imposed on Canadian institutions were too strict, that would put them at a competitive disadvantage with respect to foreign firms. Thus it is of paramount importance that capital requirements be imposed on all institutions and that Canadian requirements be consistent with those imposed by international agreement on institutions that operate in world markets. Accordingly,

13 We recommend that, as procedures for measuring and monitoring risks are developed, capital requirements be established for all Canadian financial institutions on the basis of all of the risks that they assume, and that these requirements be, as much as possible, consistent with those imposed by international agreement on institutions that are active on international markets.

Capital requirements that are established on the basis of the risks assumed by the institution play a dual role. First, they act as a cushion that the institution can use to protect itself and its customers in periods of economic difficulties. Second, they are a form of control over the risks assumed by the institution. But the 8-per-cent, risk-weighted capital requirement that Canadian banks must meet by the end of 1991 only takes credit risk into consideration, whereas the capital/asset ratio demanded of securities firms does not take that type of risk fully into account. The capital requirements for those two categories of institutions should therefore be modified in order to take into consideration both credit and position risks. There are currently efforts, under the aegis of the Bank for International Settlements, to extend risk-weighted capital/asset ratios so as to include the risk of price variations. In addition, risk-weighted capital requirements should be extended to all institutions – including trust companies, credit unions and *caisses populaires* both of which are involved in operations quite similar to those of banks.

Foreign Entry through Subsidiaries

The structure under which foreign firms are allowed to operate in Canada is another important issue that has a bearing on the stability of the financial system. Currently, foreign banks and securities firms can only enter the Canadian market by establishing subsidiaries (which may then open branches across the country), while foreign life-insurance companies may enter through a subsidiary or a branch.

Foreign institutions strongly object to the requirement to establish subsidiaries, arguing that operating and administrative costs are much lower for branches than for subsidiaries. Theoretically, a branch does not need an accounting system or a head office separate from that of the parent company; and fewer auditors are required to review its financial situation. In addition, branches can offer larger loans than subsidiaries, because they are able to draw directly on their parent institution's capital. With branches, the institution can allocate its capital resources more efficiently on a worldwide basis. As branches are still part of their parent company, they are less likely than subsidiaries to run into difficulty as a result of adverse economic conditions in the host country. The activities of a branch carry the full guarantee of the parent company; when the parent is a major international institution, that fact may enhance confidence in the financial system of the host country.

However, other factors militate against the establishment of branches, as opposed to subsidiaries. As the branch is an integral part of the parent company, it is subjected to regulation from the home country, which may, at times, limit the range of its activities. For example, the branches of U.S. banks cannot be involved in the securities business; until recently, that was also true of Canadian banks. To avoid these restrictions, U.S. and Canadian banks have established subsidiaries in London. From a regulatory point of view, it is easier to supervise a subsidiary, which must have its own set of books, administrators, and board of directors. Moreover, subsidiaries are more insulated from any financial difficulties that the parent company may encounter.

Among OECD countries, only Canada, Finland, Norway, Sweden, and Australia require that foreign banking institutions establish subsidiaries to operate in their domestic markets. However, to be recognized as a European institution in the context of post-1992 Europe and thus gain access to the whole Community, a non-EEC institution will be required to establish a subsidiary in at least one of the 12 member countries.

Also, in a number of countries the conditions attached to the establishment of a branch tend to blur the distinction between branches and subsidiaries, especially with respect to the imposition of capital equivalences. In the United States, for example, deposits amounting to 5 per cent of risky assets must generally be kept by the branches of foreign institutions with the Federal Reserve or with a

recognized deposit-taking institution within the state where they are established. In France, some form of capital requirement and a formal undertaking from the parent company are required. In Japan, a foreign securities firm that intends to establish a branch is required to deposit a performance guarantee, and branches must maintain a certain level of assets. In other cases, the range of activity that can be pursued by branches is limited; in West Germany, for example, only subsidiaries may be the main manager of Deutschemark issues.

Thus the lesson that can be drawn from the foreign experience with respect to the form of penetration of domestic markets by foreign institutions is mixed. In deciding on the preferred form, the institutions focus on the costs of conducting business, whereas the regulatory authorities are more concerned with stability.

As the international financial world is in a state of permanent flux, the stability argument takes on greater importance. Because the respective responsibilities of the host country and the home country in the sharing of supervision are not always well established and because there are few commonly accepted standards, a greater onus is placed upon the host country to protect the operations of its own financial system, of which foreign firms are an integral part. While supervising the branches of foreign institutions is not an impossible task, a survey of Canadian regulators has revealed that subsidiaries can be supervised more easily and more effectively. Until there is greater coordination in the supervision of different categories of financial institutions and greater harmonization of regulation at the international level, prudential considerations argue in favour of the subsidiary route. Accordingly,

14 We recommend that foreign financial institutions wishing to operate in Canada be required to do so through subsidiaries unless they confine themselves to transactions with non-residents.

Because solvency considerations are a source of concern to Canadian regulators only inasmuch as they affect Canadians, foreign-based institutions that limit their activities to transactions with non-residents either through international banking centres or through other means should not be constrained to operate through a subsidiary. Furthermore, the branches of foreign life insurance companies currently operating in Canada should be allowed to operate under a "grandfather clause."

Safety Nets

Safety nets are the fourth element of a domestic package aimed at maintaining confidence in the financial system.

It is important that central banks continue to look at the financial system as a whole, and not just at the banking sector, in assessing the liquidity needs of the economy and in reacting to the strains that develop in various segments of the system. It is equally important that the clients of securities firms be protected against fraud, so as to maintain confidence in all parts of the financial system. To that effect, some form of protection fund is needed. Such funds exist in France, the United Kingdom, and the United States, where they are operated by private associations and self-regulatory bodies. In Canada, the National Contingency Fund, which is run by the Investment Dealers Association (IDA) and the stock exchanges, is funded by contributions from the members of the association. The NCF protects noninstitutional customers only. It has historically been able to meet its requirements. After the failure in 1987 of a medium-sized securities firm, however, the fund had to make a "special call" on its members for additional funds in order to meet its liabilities fully and replenish its cash resources.

Because protection is mainly needed for the less sophisticated customer, a limit should be placed on coverage. No such limits currently exist in the National Contingency Fund. In the United States, the Federal Deposit Insurance Corporation covers bank depositors up to a maximum of $100,000, and the investors' protection fund has a limit of $500,000 per customer, per failure (including a $100,000 maximum for cash). In Canada, the CDIC insures bank deposits to a maximum of $60,000. Using that figure and the five-to-one ratio between cash coverage and the total coverage in place in the U.S. securities industry,

15 We recommend that the National Contingency Fund, operated by the Investment Dealers Association and by Canada's stock exchanges, cover losses by the noninstitutional customers of securities firms, not exceeding $300,000 per occurrence per customer (with a maximum of $60,000 for cash deposits). The fund would continue to be operated by self-regulatory organizations and to be financed by contributions from member firms. It should have the authority to impose financial standards on them.

The ability to impose standards on the participating firms is a condition that is often attached to protection schemes – to Canada's deposit insurance, for example – so that the insurer will not experience undue losses because of a lack of such standards. Standards enhance the solvency of financial institutions. The Council believes that standards should be set for all categories of institutions, not only because they enhance solvency but also because they reduce the "moral hazard" associated with protection funds.

Any safety net carries with it a certain degree of moral hazard, in the sense that it could encourage institutions to

undertake extra risks and shift the costs of their actions to others – i.e., to the insurer or to the lender of last resort. In the case of the National Contingency Fund, those costs would be shifted to the other securities firms since, as a group, they finance the fund. Risk-weighted capital asset ratios, disclosure requirements, and prudential supervision lessen the risk of failure and thus lessen the probability that recourse to the safety net will be required. And when an institution does fail – and it should be allowed to fail if it is unprofitable or improperly managed – management and shareholders should absorb some of the losses associated with their actions, while depositors and clients should be protected up to agreed limits. In this way, the incidence of moral hazard is minimized and the benefits of maintaining confidence in the system clearly justify the existence of safety nets.

The Ownership of Financial Institutions by Nonfinancial Corporations

In examining the issue of commercial/financial links, the Council recognizes that there are strong differences of opinion among governments within Canada and among interest groups and analysts. Our advice here is addressed to both levels of government, in the firm belief that wise decision making is more likely to result from a careful analysis of the facts and the options than from competition between the different levels of government.

Because there are strong arguments and counterarguments on both sides of this issue, it is not an easy matter to decide where the public interest lies. As noted in Appendix B, those who support the existence of upstream commercial/financial links emphasize the need to open the financial system to competition. Those who oppose the existence of such links stress the need for solvency, fair treatment, and the stability of the financial system.

From the simple perspective of promoting competition and opening up markets, it could be argued that nonfinancial firms should be allowed to own financial institutions without any reservations. From the simple solvency perspective, commercial/financial links should be banned outright. The first position would enhance the competitiveness of various financial institutions but would, at the same time, jeopardize the long-term stability of the financial system. The second would buttress solvency but stifle competition. Both are extreme positions.

Both competition and solvency are important elements that contribute to the efficiency of a financial system, and some balance must be found between them. This has led us to seek a middle ground that would provide a better balance between the objectives of competition and solvency. In the discussion that follows, we set out two possible options – one that stresses the concern for solvency, and one that emphasizes the competition objective. We do not attempt to sketch out all the design details of those options but merely present them as illustrations of the more fruitful middle ground in this debate. We also indicate which option we prefer, and why.

Option 1: Allow Commercial/Financial Links but Regulate Behaviour — Those who support the development of upstream commercial/financial links readily acknowledge the dangers referred to by critics and recommend the implementation of measures to lessen the risks of imprudent or improper behaviour on the part of the financial partner in such arrangements. To reduce those risks, it would be necessary to ensure that all transactions between financial institutions and their nonfinancial partners take place at market conditions. Thus the first option would allow the development of commercial/financial links but would establish mechanisms to monitor and review non-arms'-length transactions. This would involve the establishment of a review committee of outside directors to scrutinize such transactions fully. It would also involve more frequent auditing of the operations of financial institutions that maintain upstream commercial links.

For example, the regulatory authority might conceivably send auditors to the financial firms on a monthly basis to ensure that all transactions between related parties are undertaken in a proper and prudent fashion reflecting market conditions. The cost of this extra surveillance would be covered by special levies on the institutions that maintain commercial links.

Such policing requirements – and the bureaucratic apparatus that would accompany them – would likely be extensive. They might well slow down the development of commercial/financial links. Moreover, we believe that no amount of inspection and monitoring can be totally effective in preventing improper or imprudent transactions if the controlling partner is determined to circumvent the law. Indeed, when such abuses do occur, they often become known to the supervisory authority only after the fact. In other words, allowing commercial/financial links to develop brings in new systemic risks that cannot be fully eliminated. It is implicit in this option that Canadians should be prepared to live with these additional risks and that accepting those risks is justified by the benefits that will derive from increased competition.

To reduce the risks even further, we considered the possibility of banning all financial transactions between financial

institutions and their nonfinancial partners. An all-encompassing ban would, however, deprive the partners of the synergies that such links could provide. Perhaps more important, it would prevent the reallocation of financial resources between various segments of the related businesses as opportunities develop. Without the ability to reallocate resources, businesses cannot be run efficiently. Thus an outright ban on financial transactions between financial and nonfinancial partners would take away many of the benefits that could accrue from commercial/financial links. For that reason, we have not retained it as a viable alternative.

In the current context, allowing the establishment of commercial/financial links would meet the concerns of those who wish to encourage more flexibility in the ownership of trust companies and life insurance companies. One consequence of this option, however, is that it would be necessary to reconsider the rules governing the ownership of all categories of Canadian financial institutions. As long as Canadian banks, mutual life insurance companies, credit unions and *caisses populaires* are required, either by legislation or by their corporate structure, to be widely held, they cannot establish upstream commercial/financial links. But if, indeed, the development of such links is an important contributor to the ability of a financial institution to compete, the banks, financial cooperatives, and mutual life insurance companies would be put at a competitive disadvantage relative to other financial institutions. It should thus be kept in mind that implementing this option would sooner or later require a revision of the ownership structure of all Canadian financial institutions, including the chartered banks.

Option 2: Give the Priority to Solvency Considerations — The second option is based on the assumption that although there may not be immediate costs and disruptions from the ownership of financial institutions by nonfinancial corporations, there are longer-term dangers associated with such links. As the existing commercial/financial links mainly involve large reputable firms in a sound financial position, it is recognized that the risks of immediate disruptions are rather remote. That situation could well change, however, as more commercially owned financial institutions are established; many nonfinancial companies are highly levered and vulnerable to downturns in the cycle. Our concern is with the kind of corporate behaviour that could occur when the commercial enterprise is facing financial difficulty – when the temptation to cut corners and obtain interim financing from a captive source in order to surmount temporary difficulties can become very powerful.

To avoid these risks, the second option would prevent deposit-taking institutions from developing substantial ownership links with nonfinancial investors, but no such constraints would be imposed on other institutions. The restriction would apply to all deposit-taking institutions – banks, credit unions and *caisses populaires*, trust companies, and mortgage loan companies – because of their special role and of the protection that they receive from public safety nets. If other institutions were to accept deposits or instruments deemed to be deposits, they would become subject to that restriction as well. Under this option, provincial and federal legislation would preclude investments by nonfinancial interests (or a group of associated nonfinancial interests) in deposit-taking institutions whenever the investment is equal to 10 per cent or more of the capital stock of the target company. "Grandfathering" rules would apply to those deposit-taking institutions which already have upstream commercial links.

As for financial institutions that do not take deposits, the legislation should require that, in their dealings with the public, they make clear that they are controlled or largely owned by a commercial investor. Scrutiny of non-arm's-length transactions by independent members of the board of directors and by public supervisory authorities, as set out in Option 1, would also be appropriate.

Analysing the Options — Over the past 10 to 15 years, the world has been moving towards global competition at a quickening pace. Barriers to cross-border capital flows have been removed in all major countries; foreign firms can now more easily establish operations in the domestic markets of most industrialized nations. Large borrowers tap sources of funds available anywhere in the world; investors are induced to take a more global view of their affairs.

In this report, we have recommended measures to lower further the barriers to international competition and to improve the access of foreigners to the Canadian market and of Canadian institutions to foreign markets. We have also recommended the introduction of instruments, such as securitized business loans, that would enhance the competitiveness of the very institutions – the smaller trust companies, for example – that are currently seeking permission to develop links with nonfinancial firms. In addition, we believe that the securitization process has the potential to strengthen financial institutions with a regional base. In other words, throughout this report we have recognized the need for greater competition and have proposed means to achieve it.

On the question of the commercial/financial links, however, we believe it is wiser to give priority to concerns about the solvency of the institutions and the stability of financial markets. We adopt this position in the knowledge that in formulating public policy, the provincial and federal

authorities must continuously seek to find the right balance between competition and solvency, and that in the new financial environment, dealing with solvency concerns will present a tremendous challenge. Moreover, we believe that many of the benefits of commercial/financial links can be obtained in other ways: synergies can be achieved without cross-ownership; and markets can be competitive without commercial/financial links.

While we favour the second option, we also acknowledge that commercial/financial links already exist within the Canadian financial industry. Consequently, we believe it is appropriate to "grandfather" those existing arrangements. This proposal reflects our view that the commercial owners of financial firms should, over time, reduce their equity interest in their financial partner to a position of less-than-majority ownership.

More than one approach can be taken to achieve that result. One is to allow a suitable transition period in order that current business commitments may proceed. Thereafter, the growth of the assets of these institutions would be frozen until the major investor reduces his investment to a position of less-than-majority ownership. An alternative would be to allow continued asset growth, provided that share ownership is reduced at some fixed pace, whether legislated or negotiated.

We are aware that requiring the controlling shareholders to reduce their ownership to a minority position is more restrictive than the figure of 65 per cent proposed in the federal government's Blue Book. In part, our proposal reflects our general concern about solvency; it also reflects our recognition that even after reducing their shareholding to less than a majority position, "grandfathered" firms would remain in a privileged position relative to other deposit-taking institutions.

16 We recommend that an investor (an individual or a corporation) with interests in a nonfinancial company not be allowed to own more than 10 per cent of the capital stock of any deposit-taking institution. In the case of deposit-taking institutions that have links with commercial ventures at the time that such a legislative proposal is tabled, the growth of the institution's assets should either:

a) be brought to a halt within a suitable period of time from the implementation of the recommendation, with that growth to be allowed to resume after shareholders with commercial interests have reduced their investment to a position of less than majority ownership; or

b) be allowed to continue to grow unrestricted, subject to agreement with the relevant government authority about a timetable for reducing the majority shareholding to a minority position.

Nondeposit-taking institutions that have commercial links would be required to set up internal review committees made up of independent directors to ensure that transactions with associated nonfinancial firms reflect market conditions.

This recommendation would only specifically apply to Schedule B banks and trust companies, since Schedule A banks, credit unions, and *caisses populaires* are widely held and since securities firms, merchant banks, insurance companies, and financial corporations do not accept deposits.

Our recommendation is addressed to both levels of government. In certain provincial jurisdictions, the development of commercial/financial links has been used to strengthen local institutions. The Council recognizes the merits of fostering the growth of solid institutions attuned to local needs. Elsewhere in this report, we have offered recommendations that would contribute to that goal. However, we believe that the establishment of commercial/financial links for that purpose would provide short-term gains at the risk of high costs in the longer run. We are also aware that many provincial activities in this area of financial regulation – in particular, the initiatives undertaken by the Quebec government – have contributed to the modernization of Canadian financial markets. While allowing commercial ownership of financial institutions could add further to the competitiveness of this country's financial institutions and markets, on balance we believe that a longer view is called for, taking into account the added risks and the potential drain on public safety nets.

Policies Requiring International Cooperation

Policymakers and regulators must work together to harness the forces that the processes of globalization of markets and the financial innovation have unleashed. First, they must cooperate in removing the remaining impediments to the orderly continuation of the internationalization process, so that residents from all countries can benefit from increased worldwide competition among financial institutions and from better access to markets all around the world. At the same time, they must ensure that no institution can escape supervision by moving its activities from one jurisdiction to another, that international movements of funds are properly tracked, and that competitive regulation does not

lead to a lax supervisory system. These measures would contribute to the solvency of financial institutions and to the stability of markets.

Improving Competition and Accessibility

While Recommendations 4 and 5 dealt with the removal of domestic barriers to Canadian participation in global financial markets, any barriers remaining in other countries also ought to be removed. Accordingly,

17 We recommend that the Canadian government actively encourage other nations to eliminate any remaining barriers to the free cross-border movement of capital.

Among the countries of economic significance to Canada, few legal barriers remain. The Glass-Steagall Act and the MacFadden Act in the United States, the lack of transparency in the application of financial regulation in Japan, limits to the cross-border movement of people imposed by the United States and the United Kingdom are among the more serious obstacles that remain. Some restraints on cross-border capital flows exist in France, where lending to non-residents must be financed by funds deposited by non-residents. There are limits on foreign ownership and acquisition in Thailand, Singapore, and Venezuela; limits on entry in South Korea and Italy; as well as exchange controls in the Philippines and Brazil. According to a 1988 survey of some Canadian financial institutions, conducted by a number of federal government departments (and in which the Economic Council participated), the legal barriers to trade in financial services are seen as being small – more in the nature of an irritant. Most other barriers are economic or cultural in nature and thus are much more difficult to overcome.

Some "technical" aspects of the functioning of financial markets have not kept pace with recent developments and act as an impediment to the efficient operation of international markets. These weaknesses pertain to the clearing or matching of "buy" and "sell" orders and to the settlement (transfer of cash and securities) of transactions. Accordingly,

18 We recommend that Canadian securities commissions work in concert with international organizations towards the establishment of an efficient international structure for the clearing and settlement of orders.

Without efficient and comparable clearing and settlement mechanisms, borrowers and investors will shy away from many foreign markets, and the potential benefits to be drawn from international markets will be lost. A first step would be to establish an efficient clearing and settlement system on domestic markets and then to build international links.

Risk Reduction and Systemic Stability

Ensuring the stability of financial institutions and markets in an international context requires a four-pronged approach: the availability and dissemination of appropriate information; the establishment of harmonized accounting and reporting standards; the establishment of standardized capital requirements; and cooperation in prudential supervision. Dealing with the availability of information first,

19 We recommend that securities commissions and stock exchanges in Canada work within the International Organization of Securities Commissions and other international bodies towards ensuring the dissemination of information on stock prices and on the performance of publicly traded companies, as changes occur.

Information should be made available as soon as conditions change. To that effect, appropriate communications systems should first be put into place in individual countries, as recommended in the many reports that investigated the October 1987 stock market crash in the United States and in Europe. Then electronic international linkages between national systems should be developed.

The unbundling of risks, the growth of off-balance-sheet items, and cross-border trading have eroded the quality of the existing data on international financial intermediation. The supervisory authorities need to evaluate the risks constantly; and governments, in the management of their economy, need to know to what extent their nationals call upon international markets for their investment and financing needs. Accordingly,

20 We recommend that the Canadian government cooperate with the governments of the industrialized nations to encourage their statistical bodies to establish databases on international financial transactions.

Examples of the type of data that are currently lacking and that would be useful are: the exposure of institutions abroad to various off-balance-sheet items; the distribution of foreign-currency loans abroad according to the residence status of the borrower; details on the foreign placement of pension funds; details on foreign investments; the income

of individuals, corporations, insurance companies, pension funds, and other corporate entities received from abroad, by size, origin, and currency composition.

A second step would be the establishment of common criteria for the reporting of the financial position of financial firms. To that effect,

21 We recommend that the federal and provincial governments and regulators, and Canadian accounting and auditing bodies:

a) endorse the efforts of the International Accounting Standards Committee, the International Auditing Practices Committee, and the International Organization of Securities Commissions in developing international accounting and auditing standards;

b) actively participate in the development of such standards within the above-mentioned international bodies, with the ultimate goal of adopting them within their own jurisdiction; and

c) urge the above-mentioned international bodies to accelerate the development of international standards for the treatment of the off-balance-sheet exposure of corporations and financial institutions.

The harmonization of accounting practices is no small task, given the differences between nations and the entrenched belief that one's own system is the best. The International Accounting Standards Committee (IASC) has been working for over 15 years towards setting international accounting standards; and the International Auditing Practice Committee, established by the International Federation of Accountants, has been issuing guidelines with respect to auditing practices for 11 years. Neither of these organizations has the power to have its standards override national standards. To be effective, they need the endorsement of national standards-setting bodies and regulators. In Canada, the IASC benefits from the support of the Canadian Institute of Chartered Accountants and of several regulatory authorities.

As the international bodies are still working towards the harmonization of the treatment of on-balance-sheet items – the IASC released a draft paper on that subject in January 1989 – the development of standards in that area is still a number of years away. Delays in dealing with that issue threaten the stability of the financial system, however. Because of the lack of transparency, the financial world could, without warning, be hard-hit by a serious accident.

Harmonized and adequate accounting and auditing standards are a prerequisite for the prudential supervision of financial institutions. But in an increasingly globalized world, harmonization should also cover the control of fraud, self-dealing and abuses of conflict-of-interest situations, and the undertaking of risks by various market participants. Also, the supervision of multinational financial institutions requires an overall view of their operations. The federal and provincial governments must be able to obtain information from foreign authorities. They must be prepared to provide information on Canadian institutions to regulators in other countries. Consequently,

22 We recommend that federal and provincial governments work in international forums towards improving the international coordination of the prudential supervision of financial institutions. Areas that need improvement include:

a) access to consolidated statementa and information from foreign regulators;

b) control of fraud, self-dealing, and abuses of conflict-of-interest situations; and

c) supervision of securities firms and securities trading by banks.

With the rapid development of securitization, more attention must, indeed, be given to securities firms and to securities trading by commercial banks. The world banking system benefited from the work undertaken by the Committee of Bank Supervisors under the aegis of the Bank for International Settlements. In the case of securities firms, however, efforts at coordination only began in 1986-87 under the auspices of the International Organization of Securities Commissions. Although some progress has been achieved, much more remains to be done.

The coordination of the prudential supervision of the securities business is at the same stage of development that coordination in the banking sector was in the early 1970s. Obviously, miracles cannot be achieved here, but there should be a true sense of urgency, which should not, however, serve as an excuse for weak standards. The international coordination of prudential supervision should rely on minimum standards that provide meaningful safeguards. Minimum capital requirements must be an important element of these standards.

23 We recommend that securities commissions in Canada work within the International Organization of Securities Commissions towards the establishment of international risk-weighted capital requirements for securities firms and that the weights vary depending on the firms' exposure to position and credit risks.

This effort should also be coordinated with those of the Committee of Bank Supervisors, so that all of the institutions involved in similar types of activities would face the same capital requirements.

* * * * *

Borrowers and lenders, like the explorers of outer space, may not always appreciate the potential and the perils that they encounter in the still largely uncharted territory of the new financial frontier created by the globalization of markets and the development of innovative products. Yet this new frontier has great potential to enhance the efficiency of financial markets and strengthen the performance of the Canadian economy. It offers cheaper services and more diversified sources of funding. Producers and users who shy away from the frontier stand to lose out to their more venturesome competitors.

The Economic Council believes that the changes outlined in its recommendations are needed if Canadians are to garner the benefits of the new financial environment while reducing the associated risks. Thus we believe that barriers to innovation and restrictions on international transactions should be removed. We also believe that securitized business loans, if prudently managed, will increase the efficiency of the economy and serve the financial needs of borrowers in the regions outside central Canada.

For Canadian-based financial institutions, the new frontier offers many new opportunities within a much more competitive environment. We realize that these institutions have been losing share in some rapidly growing markets. We believe that strong Canadian-based institutions are important for our collective future. But we also believe that competition, not protectionism, is the best way to develop their strength. Hence we suggest a further relaxation in the restrictions on foreign competition in the domestic market; and we propose other measures that have the potential to enable Canadian institutions to expand their markets, both in Canada and overseas. If implemented, these measures are likely to accelerate the restructuring of the financial-services industry. This restructuring is an essential prerequisite to remaining competitive in the marketplace of tomorrow.

While our recommendations give greater emphasis to promoting competition, they are also aimed at strengthening the solvency of our financial institutions and the stability of the domestic and international financial systems. If measures along these lines are implemented, we believe that the risks unleashed by the new financial frontier can be managed; and as a result there will be greater scope for more economic gains.

We are convinced that internationalization will continue. No shield can isolate Canadians from current international developments. Therefore, we believe that Canadians, and their governments, must seize the initiative; they must adjust the controls of the ship of state to guide our voyage through the new financial frontier.

Appendices

A The Scope of the Negotiations on Trade in Financial Services

In negotiations on trade in financial services, confusion between cross-border capital flows and direct investment in financial services is not uncommon. Often, negotiators or policy analysts use the word "trade" when in fact they mean "direct investment."

Basic Concepts

Cross-border capital flows are movements of funds across national boundaries, independently of the nationality or residence of the parties involved in the transaction. For example, the purchase of foreign securities by Canadian residents on foreign markets gives rise to a cross-border capital flow, as do borrowings by Canadians on foreign and international markets.

Several definitions of *international financial transactions* exist in the literature and in statistical data. The differences between them pertain to the residence of the counterparty and to the currency in which the transaction is effected. A financial transaction becomes an international operation when:

- a foreign currency is used; that is the definition often used by the Bank of Canada in its statistics on the international operations of Canadian banks;

- a currency other than that of the country where the transaction occurs is used; this definition includes Eurocurrency operations; or

- one of the contracting parties is a non-resident, whatever the currency used.

Combinations of these elements are also found in some definitions. For example, a combination of the last two elements is used by the Bank for International Settlements in its assessment of the level of international financial intermediation.

Within such a conceptual framework, a U.S.-dollar loan booked in Canada and made to a Canadian citizen by a Canadian bank is considered an international operation because it is denominated in a foreign currency. Such a loan does not give rise to a cross-border capital flow, however; nor is it considered to be part of trade in financial services, since the supplier of the service and the client have the same country of residence.

Indeed, *trade in financial services* relates to the selling of financial products to the residents of another country. Using this notion, the OECD Committee on Financial Markets adopted a three-pronged definition of trade in financial services:

- the selling of financial products to the residents of another country from one's home base;

- the selling, by a firm or individual established in a foreign country, of financial products to the residents of a third country;

- the selling, by a firm or individual established in a foreign country, of financial products to the residents of that country.[1]

The first of these definitions may be said to reflect the pure-trade approach to trade in financial services and replicates the definition of trade in goods. Pure trade in financial services takes place, for example, when a financial institution located in one country lends money to, or accepts deposits from, customers in another. In the same way, pure trade occurs when a financial institution located in one country underwrites an issue for, or provides brokerage services to, a customer located in another country.

The distinction between domestic activities and international trade is based on the location of the producer and consumer of financial services, pure trade occurring only when their respective locations are different. That explains why a transaction in U.S. dollars between Canadian residents is not a part of trade in financial services. Similarly, an issue floated by a Canadian institution on the London Euromarket on behalf of a Canadian borrower and purchased by a Canadian resident does not constitute trade in financial services, since both participants are Canadian residents; however, it has resulted in two cross-border capital flows – one out of, and one into, the country. The entry of U.S. dollars into Canada as the result of a transaction

between a Canadian and a U.S. bank will be part of trade since the two institutions involved are not located in the same country. In this case, the accompanying capital inflow is part of trade. To use an analogy from the goods sector, Japanese automobiles entering Canada are considered to be imports, while the sale of a Japanese car by a Canadian resident to another represents a strictly domestic transaction.

When the pure-trade definition is used, however, the figures for trade in financial services are very small. For example, estimates by St-Hilaire and Whalley of trade flows in traditional banking services for the United States in the early 1980s run in the range of US$3 billion to US$5 billion – an amount equal to between one fifth and one eighth of the estimates of income received from foreign sources that are linked to the operations of the establishments of U.S. banks outside their country.[2] For Canada, the estimate of exports ranges from US$550 million to US$980 million. We have estimated that in 1985, loans booked in Canada by Canadian banks to non-residents amounted to only 9.2 per cent of total loans to non-residents by Canadian banks.

The above figures point to an important feature of trade in services – and of trade in financial services, in particular: while there are three ways to export financial services to the residents of another country, most of these services are provided from establishments located outside the bank's home country.

That finding brings us to the concept of *foreign direct investment in financial services*, which refers to the establishment of a financial institution outside its home base in order to provide a financial service.

Even with modern telecommunications and technologies, financial institutions continue to believe that there is a need for a more substantial presence abroad than that provided through a correspondent bank. The establishment of an office at the local level is a prerequisite for the firm's involvement in the retail business. It is also crucial for gathering information – an important input in the production function of financial services – as it enables the institution to make contact in the community and to acquire knowledge of the host economy.

Because of the paramount importance of information, the problems faced by financial firms differ from those of manufacturing companies, and trade in financial services differs from trade in goods. For manufacturing companies, trade and foreign direct investment tend to be alternatives; in the case of financial institutions, they are complementary.

For the most part, the second and third elements of the OECD's definition are viewed as foreign-investment issues rather than trade issues. These two elements add a new dimension to the definition – that of the "nationality" of the parent company. Thus a loan by the Canadian subsidiary of a U.S. bank to a Canadian resident or a loan by the British subsidiary of a Canadian bank to a U.K. resident are part of trade in financial services, although such transactions are not included in the balance of payments because the two parties are residents of the same country.

But can all the operations of foreign branches or subsidiaries be viewed as being part of trade? A distinction should be made between the activities of subsidiaries and those of branches, agencies, and representative offices. The services offered by an institution's branches, agencies, and representative offices abroad are linked closely enough to those of the parent company to be included in trade activities.

The activities of locally incorporated subsidiaries of foreign companies are a different matter, however. Quite often, the financial products sold by subsidiaries abroad are different from those offered by the parent company in the home country. For example, U.S. banks underwrite corporate equity in international markets – an activity that they are prevented from engaging in at home by the Glass-Steagall Act. These are legitimate concerns. Growing convergence of regulation across countries would lessen their importance, however. The nationality of the parent company remains an important factor, however.

Nonetheless, the nationality criterion calls for a distinction between foreign direct investment and portfolio investment. Foreign direct investment involves the legal control of the underlying real asset. It is an extension of managerial control. When a Canadian financial institution opens a subsidiary, a branch, or an agency abroad, it makes a foreign direct investment, since it owns equity in these firms and very often will participate in managerial decisions. On the other hand, when a Canadian financial institution purchases a number of shares of a foreign firm without gaining control over it, that is a portfolio investment.

Figure A-1 provides some examples of the interrelations between these concepts.

A Dual Dimension

Trade in financial services is part of the internationalization process, which is one of the themes that serve as a focus of this report. There are two different aspects to such trade. One has to do with cross-border capital flows. In Chapter 4, we examined the transactions that fall within the pure-trade definition of financial services, but we extended

Figure A-1

Differences in the Status of a Loan Extended by a Canadian Bank

	Currency	Nature of operation[1]		
		Cross-border capital flow	International transaction	Trade transaction
Residence of the borrower:				
Loan booked in Canada				
Canada	C$	No	No	No
Canada	US$	No	Yes	No
United States	C$	Yes	Yes	Yes
United States	US$	Yes	Yes	Yes
Loan booked in London[2]				
Canada	C$	Yes	Yes	No[3]
Canada	US$	Yes	Yes	No[3]
United States	C$	Yes	Yes	Yes
United States	US$	Yes	Yes	Yes
United Kingdom	UK£	No	Yes	Yes[4]

1 From the viewpoint of Canada.
2 All these operations depend on the establishment of a physical presence by the bank in London and thus results from foreign direct investment.
3 This operation would be considered as an international transaction from the viewpoint of Canada's balance of payments.
4 This operation would not be considered as an international transaction from the viewpoint of Canada's balance of payments.

our consideration of that topic to include cross-border capital flows and the international operations of financial institutions that are not included in trade in financial services.

A second aspect of trade in financial services has to do with the penetration of domestic markets by foreign institutions. That aspect is linked to foreign direct investment, from which trade in financial services cannot be disassociated. In Chapter 5, we considered the issue of foreign direct investment, known in negotiators' circles as an issue related to the right of establishment.

Current Discussions

Concerns about trade in financial services – and, in particular, about the liberalization of such trade – fall under both the pure-trade approach and issues of foreign direct investment. The liberalization of cross-border flows of capital and financial services pertains to trade, whereas the right of establishment and the related issues of reciprocity and national treatment have to do with foreign direct investment.

Bilateral treaties on trade in services have been signed between Canada and the United States, between Israel and the United States, and between Australia and New Zealand. In addition, negotiations on this subject are currently under way within the European Economic Community. At the international level, two large bodies – the General Agreement on Tariffs and Trade (GATT) and the Organisation for Economic Co-operation and Development (OECD) – have studied, and/or proposed rules for, trade in services.

Within the GATT

Following the Second World War, the GATT Bureau was established by international agreement among 23 countries (including Canada) that sought to reduce trade restrictions. (Today, that number has risen to 96.)

Until 1986, negotiations within the GATT did not deal with trade in services. That year, however, it was decided to include trade in services as part of the multilateral trade negotiations (MTN). Actual negotiations on a sector-by-sector basis have yet to begin, although many countries have produced broad blueprints for the liberalization of trade in services.

An important question currently being considered is the extent to which GATT principles that apply to trade in goods – non-discrimination and most-favoured-nation (MFN) treatment, national treatment, transparency, and the creation of a dispute-settlement mechanism – can also be applied to trade in services. The United States and some

other industrialized countries also want to bring to the table the right of establishment, which is not a GATT principle.[3]

The blueprints are likely to be a starting point for the negotiation of a number of sectoral agreements, which are expected to eventually cover banking and insurance. There is, however, some skepticism with respect to the ultimate success of these negotiations. Major differences in domestic approaches to financial regulation are seen as a stumbling block in the forthcoming MTNs. In addition, many of the developing countries have expressed reservations about the inclusion of the right of establishment in the agenda for the negotiations.

Within the OECD

The OECD, on the other hand, already has some mechanisms in place to deal with the liberalization of international trade in banking and financial services. They are the code of liberalization of capital movements, the code of liberalization of current invisible operations, and the national-treatment instrument. In addition, a number of OECD committees are studying the liberalization of trade in financial services.

The OECD codes of liberalization – the first of which was adopted in December 1961 – are legal instruments through which the members have committed themselves to a process of liberalization. However, member countries are allowed to register reservations, indicating the areas where they are not prepared to honour the codes.

The code of liberalization of current invisible operations covers mainly business and industry, commissions and fees from foreign trade, transport insurance, travel, tourism, and income from capital. Although that code covers some elements related to trade in financial services, the code of liberalization of capital movement addresses this issue more directly. It covers medium- and long-term capital operations, including direct investment, the issuing and trading of shares and bonds, and credit and loan operations, as well as personal capital movements and short-term credits related to international trade. The code of liberalization of capital movements does not cover the other short-term operations. The possibility of including the latter is presently under review.

Since 1984, the obligation to liberalize inward direct investment has been strengthened to cover the main aspects of the right of establishment for foreign firms. However, all countries have registered reservations with respect to the liberalization of foreign direct investment. While the OECD code addresses, among other issues, those which arise for nonresident investors seeking to set up operations in an OECD country, the treatment of firms already in place is a matter for the national-treatment instrument. Under this instrument, the member countries agree to apply national treatment to foreign-owned or -controlled firms operating within their territory.

The codes of liberalization and the national-treatment instrument are under continuous scrutiny by the OECD's committees on Capital Movements and Invisible Transactions and on International Investment and Multinational Enterprises. The committees on Trade and on Financial Markets also review issues pertaining to trade in financial services. For example, the Trade Committee published, in March 1987, a conceptual framework aimed at promoting the liberalization of trade in services; it has begun to test the relevance of this framework for banking and insurance services; the Committee on Financial Markets is in the process of identifying obstacles to international trade in financial services.

In general, international negotiations on trade in financial services are concerned with the removal of existing barriers to such trade. At the present time, most of the barriers to the free flow of capital among the major industrialized nations have been removed; only minor irritants remain. Almost all of the remaining barriers are to be found in the area of the right of establishment and the conditions of operation of the institutions of one country in another.

These issues are thus gaining importance in international forums. The inclusion of the right of establishment – a very sensitive issue – will probably be subject to intensive negotiations. It is the right of access that is at stake in this instance rather than "pure trade."

Obstacles to Trade in Financial Services

Regulatory Barriers

In the United States, the Glass-Steagall Act, which requires that institutions performing banking operations and those which underwrite private securities issues be separated, is a barrier to the establishment and operation in that country of Canadian securities firms owned by Canadian banks. Some Canadian firms had to cease some of their securities operations in the United States, following their merger with Canadian banks that also operated south of the border.

Similar considerations apply in Japan. Of the four Canadian securities dealers active in Tokyo, three are now subsidiaries of large Canadian banks. In order for one of

these firms to expand its operations in Japan, it would be required to create a Japanese subsidiary with no more than 50-per-cent foreign ownership.

A further restriction in Japan is the limited number of seats on the Tokyo Stock Exchange. In December 1985, 10 new seats were created, of which six were given out to foreigners; in May 1988, 16 new seats were given to foreign securities dealers. This illustrates the process of control by the Ministry of Finance, which proceeds by modifications to existing rules rather than a change in overall policy.

Barriers to Direct Entry

No regulation explicitly bans the entrance of new foreign-owned banks or securities firms in any of the Group of Seven (G-7) countries. However, these countries have a policy, written or unwritten, of limiting the number of shares in their large financial domestic institutions that foreigners may own. For example, the authorities of the Bank of England have clearly stated that they would not let a large domestic bank fall under foreign control. In France, foreign participation in newly privatized firms is limited to 20 per cent.

In the United States, the dual system of bank chartering brings some limitations. Each bank, regardless of whether it has a federal or a state charter, must have a "home" state. Interstate banking is generally prohibited in most states, although there are some agreements whereby bank branching is allowed among the signatory states. Some of these agreements contain a clause that explicitly excludes foreign-controlled banks.

Prior to the passage of the International Banking Act in 1978, several foreign (including Canadian) banks had branches in several states and, in fact, enjoyed privileges that were not available to U.S. banks. The act "grandfathered" the arrangements in place at that time but prohibited these foreign banks from expanding into states in which they were not yet established.

In France, stock brokerage is not yet open to foreigners, but the monopoly of the French "agents de change" will cease at the end of 1991. Beginning in 1992, banks and other financial institutions will be allowed to operate directly on the stock market. In anticipation of this change, financial institutions and commercial companies have been allowed, since January 1988, to buy into brokerage firms gradually. Full control of stock brokers by these institutions had been planned for January 1990 but has, in fact, been authorized since the end of September 1988.

Foreign banks are, in principle, allowed to establish a presence in France. Each individual request is considered as a special case, however. At times, entry depends on permission being granted to a French bank to enter the home country of the applicant.

While Japan has recently opened up its financial markets and – on the surface, at least – appears to have few barriers to entry, in practice the entry of foreign institutions into the Japanese market is quite restricted, most notably because of the arbitrary application of regulation by the Ministry of Finance.

Restrictions on Growth

In Japan, even though a foreign bank, once established, has the right to operate throughout the country, the Ministry of Finance restricts foreign banks to a small number of branches, thus limiting their ability to enter the retail banking market. The foreign banks have limited access to the discount facilities of the Bank of Japan, because the bank requires collateral in the form of first-class commercial bills. Because of the nature of their operations, foreign banks have few possibilities of acquiring such bills.

In the United States, some states limit the number of branches of foreign banks. In Illinois, for example, foreign banks are limited to two branches, while domestic banks can have five.

Restrictions on Activities

In the United States, a number of states impose restrictions on the activities of foreign banks. For example, in Florida, foreign banks can only open agencies and therefore may not operate in the retail market. Several states have prohibited foreign banks from accepting deposits.

In West Germany, while the subsidiaries of foreign banks are granted the same treatment as domestic institutions, the branches of foreign banks may not act as banks of deposit for mutual funds of West German investment companies or act as lead managers in the syndication and selling of Deutschemark bond issues by foreign borrowers.

Discrimination in Operating Practices

In the United States, the capital-equivalence requirements also act as a barrier. Rather than being required to meet the capital requirements imposed on U.S. banks, foreign banks'

branches and agencies must place dollar deposits and investment securities in amounts specified by the licensing authority in specified depositories. Federally licensed branches and agencies are subject to uniform requirements on capital-equivalence deposits. The amounts required by state banking authorities vary across different jurisdictions. These capital-equivalence requirements may, in some cases, be greater than the amount of capital required from U.S. banks. In all cases, these requirements limit the investment opportunities of foreign banks.

Other Barriers

There are barriers of a social and cultural nature. In Japan, there are major social barriers to the entry of foreign institutions into a number of domestic markets. In particular, Japanese consumers and many businesses have become accustomed to dealing with their institutions. Over time, they have developed customer loyalties that are unparalleled in Canada. For this reason, it would be extremely difficult for a foreign bank to enter the retail banking industry of Japan. In addition, many Japanese customs are not well known to foreigners, including Canadians. It would take a considerable effort on the part of a foreign institution to acquire sufficient knowledge and expertise to operate in this environment.

The West German financial system is perhaps one of the best examples of economic (as opposed to regulatory) barriers to the establishment of foreign institutions. Foreign banks may open branches or subsidiaries that will be either wholly or partially owned by them or by their representative offices. Even institutions without commercial bank charters in their home country can obtain a limited banking licence authorizing them to participate in the securities market in West Germany. Representative offices may give investment advice and direct business to their parent, but they may not conduct actual banking business.

Foreign-bank branches and subsidiaries may engage fully in the same range of banking activities as domestic banks, once they are established as banking institutions. In some cases, however, the Federal Association of German Banks will require additional assurances from the parent company before its branch or subsidiary is admitted to the deposit-protection fund.

While regulation does not restrict the operations of foreign banks, economic constraints make the establishment of banking operations in West Germany less desirable than elsewhere. Overbanking, in particular, reduces the rewards of opening new branches and makes expansion difficult. There are currently over 4,500 banks in West Germany, providing one branch for every 1,400 residents. By comparison, Canada, which is also viewed by some as being overbanked despite its large territory, has one branch per 3,700 residents.

Only the four largest West German banks, one of which is publicly owned, are genuine "universal" banks, serving all regions of the country and performing all types of permissible banking activities. Overbanking in West Germany is mostly related to retail banking activity. While a number of the smaller banks do take part in capital-market activities, the four largest banks account for about 80 per cent of the volume of underwriting of new security issues.

Because the retail market, particularly the deposit market, is served by a vast number of small banks with a large number of branches, foreign banks find it difficult to penetrate that market.

B The Ownership of Financial Institutions

Over the past 18 months or so, "commercial/financial links" – i.e., the ownership links that exist between a financial and a nonfinancial corporation that could enable one corporation to influence the other – have resurfaced as an important policy issue in the context of the internationalization of financial markets. There have been increasing pressures from institutional groups and from some provincial governments to accept the existence of such links. The proponents of the relaxation of ownership rules argue that a flexible regulatory framework is needed to enable Canadian institutions to compete effectively in a globalized world. This line of argument takes on particular significance in the context of the loss of market share experienced by Canadian-controlled institutions on international markets. The opponents to commercial/financial links raise concern about solvency – also an important issue in the context of the decline in transparency brought about by internationalization and innovation.

The Current Situation in Canada

The Institutional Setting

Two types of commercial/financial links exist: "upstream" links, which involve the holding of shares in a financial institution by a nonfinancial corporation; and "downstream" links, in which the relationship is reversed – i.e., in which a financial institution holds equity in a nonfinancial corporation. The existing situation in Canada with respect to both types of links varies from one category of institutions to another.

Canadian *chartered banks* have neither upstream nor downstream commercial/financial links, as no single shareholder can own more than 10 per cent of the capital stock of a Schedule A bank, and as Schedule A banks are restricted in their holding of equity in commercial ventures. All but one of the Schedule B banks are wholly owned subsidiaries of foreign banks. For Canadian regulatory purposes, foreign-bank subsidiaries are deemed to have no commercial links, even though such links may exist between their parent company and nonfinancial enterprises in their home country. The only Canadian-controlled Schedule B bank – the Laurentian Bank – belongs to the Laurentian Group, which does not, at this point, have extensive commercial links.

The situation for *trust companies* is more mixed. Some of them belong to financial holding groups that have extensive commercial links. In particular, three firms, accounting for about 58 per cent of the total assets of the trust industry in 1987, are owned by nonfinancial corporations or belong to holding groups that have extensive commercial links. Other trust companies do not have extensive commercial links. When such links do exist, they are mainly to be found upstream. There are few downstream relationships of this type.

The situation in the *life insurance* industry is also mixed. Some insurance companies belong to financial holding groups that have extensive commercial links. On the other hand, many life insurance companies, especially mutual companies, are widely held and do not have upstream commercial links. There are few downstream commercial links in the Canadian life insurance industry.

In the *securities industry* most of the firms do not have commercial links, either upstream or downstream.

The fifth largest group of financial institutions – *credit unions* and *caisses populaires* – are cooperative firms and are therefore widely held. There are no upstream commercial links in this group. Some of the institutions, however, have limited downstream links through other members of the group that partake in merchant-banking activities. However, those links represent a small proportion of the total investment by the group.

Other institutions – such as business-financing corporations, merchant banks, and so on – maintain commercial/financial links that are largely associated with the nature of their business. However, they are not the subject of the current debate.

The Regulatory Framework

Only in the case of the chartered banks does the existing legislation explicitly prohibit the existence of upstream commercial/financial links. The Bank Act also restricts the holding of the equity of nonfinancial corporations by banks.

Trust legislation at both the federal and the provincial levels limits downstream commercial/financial links but

contains no explicit constraints on the existence of upstream links. Similarly, the legislation governing life insurance companies imposes some constraints on downstream links; upstream links are constrained by the nature of the organization of life insurance companies.

Until recently, nonindustry participation in the ownership of securities firms was restricted. These institutions could not develop upstream commercial/financial links, and downstream links were also limited. The constraints on upstream links have recently been removed as part of the ongoing regulatory reform in the financial industry.

Proposals for Change

In the current process of regulatory reform at both the federal and provincial levels, different approaches have been proposed by various institutional groups and governments.

In its 1986 proposals, the federal government considered tightening the ownership rules for federally incorporated financial institutions and limiting the ownership of financial institutions by nonfinancial corporations.[1]

The proposals would prohibit commercial interests from increasing ownership positions of more than 10 per cent or from acquiring ownership positions exceeding 10 per cent in existing nonbank financial institutions with capital in excess of $50 million. Existing trust, loan, and insurance companies with commercial links and more than $50 million in capital would be required to have at least 35 per cent of their voting shares publicly traded and widely held by 31 December 1991 or within five years of reaching the $50 million capital threshold. These ownership proposals are currently under review.

Also during the 1980s, the governments of Quebec and Ontario were moving towards the removal of constraints in the establishment of upstream commercial/financial links. This was reflected in Quebec's 1982 insurance legislation and in Ontario's 1987 trust and loan legislation. It was also reflected in speeches by the Quebec minister responsible for financial institutions. In October 1988, the government of British Columbia, in its proposal for a new Financial Institutions Act, took a stand in favour of allowing commercial/financial links: "British Columbia does not support financial/commercial ownership restrictions, rules requiring financial institutions to be widely held or foreign or non-resident ownership restrictions. Such limitations establish unnecessarily restrictive barriers to entry into the financial sector."[2]

In *Competition and Solvency*, the Economic Council explicitly recommended that financial holding groups not include a nonfinancial corporation among its subsidiaries, except for ancillary support companies. It did not directly address the issue of upstream links, although this was indirectly covered in its recommendation of widespread ownership for institutions with assets greater than $10 billion. Under this recommendation, investors with or without commercial ties would be treated in similar fashion.

The Foreign Experience

The evidence from industrialized countries indicates that commercial links are not widespread among the main competitors of Canadian banks and securities firms. In the banking sector, substantial upstream links are quite uncommon. Where commercial/financial links do exist, they are found downstream, with the bank holding equity in nonfinancial businesses.

The existence or absence of commercial/financial links results from the explicit regulatory framework, the attitude of the regulatory authorities, and market developments.

Countries have different legislative rules governing upstream and downstream links. Some countries – Australia, Belgium, Sweden, and the United States among them – do not allow downstream ownership of commercial firms by banks. Others, such as Finland and France, impose strict limits. Yet others (e.g., Japan) only require that such ownership be reported to – and, in certain cases, approved by – the regulatory authority. Finally, some countries (the United Kingdom, for example) have no legal limit whatsoever.

With respect to upstream ownership, some countries (e.g., the United States and Norway) have strict limits for many types of institutions. Others (e.g., Belgium and Australia) require approval. Some countries (the United Kingdom and Switzerland, for example) have no restrictions.

But even in countries where there are no regulatory limits on the existence of commercial/financial links, either upstream or downstream, the regulatory authority may strongly discourage the establishment of such links. That is true of Italy and the United Kingdom, where the central banks strongly oppose the development of any type of commercial/financial links.[3] In several countries, the prenotification requirement for the acquisition or transfer of shares in financial institutions acts as a deterrent to the development of commercial/financial links.

In many of the countries where commercial/financial links do exist, they are developed in a more subtle fashion

than through cross-ownership of equity. In Japan, for example, such links are not based on majority share-ownership or holding-company affiliation:

> A group of companies, which can include a bank, may be loosely affiliated through shared directors, long-term financial and management relationships, and small ownership interests in each other. Through these ties, banks and commercial firms can influence each other even if no single firm has a controlling share of another.[4]

In France, some of the large banks are wholly owned by holding companies that have commercial links. These bank-holding companies tend to keep their ownership participation below 50 per cent, however. In West Germany, banks are involved in commercial firms. The legal constraint that they face is that the sum of a bank's equity investment above 10 per cent of a commercial firm's capital plus its other fixed investments may not exceed the bank's own capital. Considering that banks can value their assets at cost or market value, depending on whichever is lower, and that they can exercise the voting privileges of the shares for which their customers grant them custody, they may have some influence on the operation of nonfinancial businesses.

While there are differences between countries with respect to legal constraints and to the approaches taken by the regulatory authorities, many large multinational financial institutions that are the direct competitors of Canadian banks and securities firms are widely held and have no ties with commercial firms. That is generally true, for example, of the 40 largest banks in the world, ranked by the size of their assets (Table B-1). Most Japanese banks are widely held.[5] The Crédit Agricole is a mutual company. The Société Générale has many shareholders.[6] Citicorp, Chase Manhattan, BankAmerica, Deutsche Bank, Barclays, National Westminster, Algemene Bank Nederland, and Swiss Bank Corporation are all widely held institutions, as is the Union Bank of Switzerland, whose largest single shareholder does not own more than 2 per cent of total shares. The Banca Nazionale del Lavoro is a state-owned institution. In the securities industry, Salomon Brothers and Merrill Lynch operate in many countries and do not maintain commercial links.

It should be noted that in several foreign countries – in particular those which have some form of restriction on commercial/financial links – these constraints do not generally extend to institutions other than banks. Indeed, in the United States there are many examples of financial institutions other than banks that are owned by some of the largest nonfinancial corporations in the country, such as Ford, General Motors, and Sears Roebuck.

The evidence provided by the foreign experience indicates that while there are different models of regulation in different countries, most of the foreign competitors of Canadian financial institutions do not have commercial links.

Should the Constraints Be Removed?

The argument is often made that the removal of the constraints on commercial/financial links would be beneficial in many respects to the development of financial institutions and markets, for the following reasons:

1 It would provide financial institutions with much-needed *capital*. Indeed, nonfinancial corporations may be in a position to boost the capital base of associated financial institutions.

2 It would guarantee a *strong shareholder presence*, often viewed as an added protection for the customers of financial institutions and as a means of ensuring proper management of the firm.

3 It would enable the group to *diversify its sources of revenues*. The less the correlation among revenues from different sources, the more stable the overall income of the group.

4 It would permit the exploitation of the *synergies* from associations between financial institutions and commercial enterprises. Economies of scope could develop through the joint production of financial and nonfinancial services. Distribution networks could be strengthened. For example, linking banks with department stores would increase the distribution outlets for banking services. The synergies and economies of scope would, of course, depend on the degree of complementarity between activities. Mortgage lending and real estate investment, for example, are closely associated activities. Similarly, life insurance coverage and medical insurance complement the dispensing of medical services; and car loans are complementary to the sale of automobiles.[7]

5 It would promote *competition*. Many of those who have studied commercial/financial links and the ownership issue view the current restrictions as a serious barrier to entry.[8] As the financial service sector is one of the fastest-growing industries worldwide, "constraining Canadian financial institutions from raising capital from commercial organizations will put them at a serious disadvantage relative to foreign firms which do not face such constraints."[9] Also in the area of competition, while Schedule A banks face own-

Table B-1

The 40 Largest Banks in the World in 1987, by Size of Assets

		Assets	Country
		(Millions of U.S. dollars)	
1	Dai-Ichi Kangyo Bank	270,782	Japan
2	Sumitomo Bank	250,568	Japan
3	Fuji Bank	244,057	Japan
4	Mitsubishi Bank	227,522	Japan
5	Sanwa Bank	218,197	Japan
6	Industrial Bank of Japan	215,605	Japan
7	Crédit Agricole	214,382	France
8	Citicorp	198,388	United States
9	Norinchukin Bank	186,534	Japan
10	Banque Nationale de Paris	182,675	France
11	Deutsche Bank	168,904	West Germany
12	Crédit Lyonnais	168,344	France
13	Mitsubishi Trust & Banking	166,085	Japan
14	Barclays	164,301	United Kingdom
15	National Westminster Bank	162,880	United Kingdom
16	Tokai Bank	161,762	Japan
17	Sumitomo Trust and Banking	154,435	Japan
18	Mitsui Bank	154,132	Japan
19	Société Générale	144,951	France
20	Long-Term Credit Bank of Japan	138,950	Japan
21	Taiyo Kobe Bank	138,654	Japan
22	Bank of Tokyo	136,556	Japan
23	Mitsui Trust & Banking	130,529	Japan
24	Dresdner Bank	130,463	West Germany
25	Yasuda Trust & Banking	128,866	Japan
26	Daiwa Bank	126,269	Japan
27	Union Bank of Switzerland	125,521	Switzerland
28	Compagnie Financière de Paribas	122,275	France
29	Swiss Bank Corporation	114,390	Switzerland
30	Toyo Trust & Banking	109,204	Japan
31	Hongkong Bank	106,156	Hong Kong
32	Commerzbank	101,236	West Germany
33	Chase Manhattan Corporation	99,133	United States
34	Westdeutsche Landesbank Girozentrale	96,147	West Germany
35	Banca Nazionale del Lavoro	96,072	Italy
36	Bayerische Vereinsbank	94,541	West Germany
37	Nippon Credit Bank	92,952	Japan
38	BankAmerica Corporation	90,896	United States
39	Midland Bank	90,679	United Kingdom
40	Kyowa Bank	88,350	Japan

SOURCE *The Banker*, July 1988.

ership restrictions, it should be pointed out that the Canadian subsidiaries of foreign banks that have commercial links at home are not treated by federal authorities as having such links. No special restriction on their growth or their capacity to acquire other financial institutions has been placed on them on this account. Such *de facto* differentiated treatment is a departure from the national-treatment approach and may work to the detriment of Canadian institutions. The recent authorization given American Express to open a Schedule B bank is viewed by many as an example of a double standard.

Advocates of the removal of the constraints on commercial/financial links in Canada cite the example of the United

States, where there have been many instances of upstream mixtures between commercial and financial activities throughout the country's history; they note that the owners of banks have engaged in all types of business activities, including those which banks themselves would not have been allowed to engage in. The existing restrictions on what the owner of a bank may or may not do are of relatively recent origin. As a staff study of the Federal Reserve Board has pointed out, it was not until 1956, when the Bank Holding Company Act prohibited non-banking corporations from owning two or more commercial banks, that "the basic principle of separation of banking and commerce was established." And since 1956, this principle has been applied only to some owners of some banks.[10]

Some analysts attribute the tradition of separation between financial and commercial activities in North America to the legacy of the system in place in Britain during the 18th century.[11] Others, however, relate this separation – particularly of downstream links – to the "real bills" doctrine, which associated the permissible assets of banks with the nature of their liabilities. In the 18th and 19th centuries, their liabilities were mostly of a demand nature, which were matched by short-term lending. It was thought that investment in the equity of corporations would increase banks' risk because of the different terms to maturity of assets and liabilities, which would cause liquidity problems if the equity could not be sold quickly for its full value.[12] The nature of banking has changed very much since that time, however, and the argument is now made that such a tight rule is no longer necessary.

Should the Constraints Be Reinforced?

Arguments against commercial/financial links focus on the safety of financial institutions, the funding of associated companies in difficulty, possible abuses of conflict-of-interest situations, the danger of concentration of power, market-distorting allocation of credit, and preferential loan treatment.

Financial institutions – banks, in particular – play a unique role in maintaining a payments system and supplying the financing needed to support economic activities. The *stability* of the payments system and of financial institutions is of the utmost importance. Because commercial/financial links increase risks, they have an indirect impact on the stability of the financial system. These concerns are enhanced by the fact that safety nets have been put in place to improve the stability of the system and to protect the savings of individuals as well. Many analysts believe that the removal of the restrictions on commercial/financial links, especially in the case of deposit institutions, would be tantamount to extending the protection provided by those safety nets to the nonfinancial corporations associated with the institutions.[13]

Commercial/financial links may lead to *abuses of conflict-of-interest situations* and to *self-dealing*. Even in the absence of actual cases of abuses, the consumers of financial products might find it difficult to put their trust in financial institutions with ownership links to nonfinancial corporations.[14]

A *strong shareholder* presence, while presenting benefits, also facilitates *abuses* and fraudulent behaviour.

Those who oppose commercial/financial links point to the negative impacts of the *concentration of assets* in the hands of a few institutions. Concentration of assets and concentration of markets have generally been declining over time. The data, however, reflect a situation where commercial/financial links are prohibited; the removal of these constraints might contribute to a rise in asset and market concentration.

Pros and Cons

In response to the foregoing arguments, a number of counter-arguments have recently been made by supporters of both positions.

Those who oppose commercial/financial links acknowledge that synergies could result from an association between financial and nonfinancial corporations. They recognize that financial institutions could benefit from the distribution networks of commercial firms or from the economies of scope created by the joint production of financial and nonfinancial services. They note, however, that the same benefits can be achieved by agreements without involving the exchange of equity or cross-ownership.

Those who favour commercial/financial links, on the other hand, argue that unless the parties to such an agreement have a direct stake in the joint venture – i.e., the type of direct involvement that comes with commercial/financial links – they will not have a full commitment to its success.

It has been argued that there are a number of ways of improving the competitive environment in the financial system besides allowing commercial/financial links. One way is to encourage the entry of foreign institutions. For example, three of the top 12 firms in the Canadian business-loan market are subsidiaries of foreign banks. Another way

is to encourage a broader range of Canadian institutions in domestic markets. That is one of the goals of current legislative proposals aimed at widening the investment powers of different categories of institutions – by enlarging the personal and commercial lending powers of trust and insurance companies, for example. In the same vein, the development of asset-backed securities would encourage institutions to specialize in areas where they have a comparative advantage; in particular, it would encourage the smaller trust companies to originate more loans.

Those who favour the removal of the constraints on commercial/financial links recognize the potential dangers associated with conflict-of-interest situations – in particular, the potential threat to the solvency of financial institutions and the fair treatment of their clients. They note, however, that these problems can be resolved by strict rules applying to related-party transactions and by enhanced corporate governance. They argue that the activities of financial institutions and their associated nonfinancial corporations can be kept apart by the so-called "Chinese walls." In addition, some supporters of commercial/financial links stress that providing financing to an associated commercial enterprise by a financial institution would be strictly controlled, if not prohibited outright.

Those who argue against commercial/financial links note that strict control on financial transactions between associated financial institutions and commercial ventures would seriously reduce the synergies between them – a most important reason behind the establishment of such links. They are also skeptical about the effectiveness of rules regulating transactions among associated companies.[15]

The supporters of commercial/financial links readily recognize that in the context of the existence of deposit insurance, these links could result in an extension of safety nets to the nonfinancial corporations associated with the financial institutions for which the safety nets have been designed. To resolve that moral-hazard problem, they suggest a review of the existing safety nets.

The opponents of commercial/financial links, however, point out that in the current context of rapidly increasing internationalization and the emergence of new sophisticated financial instruments – two developments that lessen the transparency of financial systems across the world – the smaller users of financial services are even less likely than before to be able to assess the soundness of the financial institution with which they are dealing. Under those circumstances, safety nets clearly remain necessary. More generally, given the systemic risk associated with internationalization and innovation, mechanisms such as deposit insurance and lender-of-last-resort facilities are needed to maintain the stability of the financial system.

Analysing the Debate

The debate on commercial/financial links brings out the dilemma facing policymakers and policy analysts: How can one find a proper balance between competition and solvency? The efficiency of a financial system depends on both equally.

The arguments in favour of commercial/financial links are based on benefits for financial institutions and their owners. Those arguments reflect more than a purely mercantilist view, however, as they are also driven by the goal of improving competition on domestic markets and the competitiveness of Canadian financial institutions on world markets.

The arguments against commercial/financial links, on the other hand, stress the existence of systemic risks and dwell on the importance of maintaining confidence in the financial system – i.e., in the solvency of the institutions and in the expectation of fair treatment by the producers of financial services. In a situation where most of the benefits – at least in the first instance – accrue to the institutions, ways must be found for them to bear the costs, to discipline themselves. But there is still a balance to be found between the broader issues of the benefits of competition and those of solvency and fair treatment.

The views of policymakers in the past have alternated between the need to focus on competition and the need to focus on solvency, depending on the events of the day. Following the rash of failures of financial institutions in Canada between 1980 and 1985, governments emphasized solvency and the abuses of conflict-of-interest situations, as in the Green Paper released by the federal government in 1985.[16] With internationalization and the growing need to compete on international markets and with some reduction in the number of failures of domestic institutions, the focus has recently shifted back towards competition.

It should be pointed out that most of the failures of financial institutions that occurred between 1980 and 1985 were not related to the existence of commercial/financial links, but rather were caused by such factors as inadequate management of assets and liabilities, insufficient diversification, erosion of the capital base, and questionable practices by managers. This suggests that honest and adequate management of financial institutions and their nonfinancial partners would prevent the development of solvency problems.

Honest and adequate management is not guaranteed at all times, however. While such behaviour might be unthinkable in times of prosperity, managers and owners may, if the firm enters a stormy period, engage in questionable practices in order to save it from bankruptcy.

Most of the benefits of commercial/financial links are to be found upstream – i.e., through the ownership of financial institutions by nonfinancial interests. Those are the benefits to be derived from the injection of added capital, the diversification of sources of business income, and the development of synergies. The dangers – particularly those related to abuses of conflicts of interest, to threats to confidence in a fair treatment by financial institutions, and to potential failures – are related to upstream as well as downstream commercial/financial links.

In analysing the implications of commercial/financial links, it may be appropriate to separate deposit-taking from nondeposit-taking institutions: the negative impact of commercial/financial links on solvency and, in particular, on the stability of the payments system, pertains mainly to deposit-taking institutions. Thus there might be some justification for limiting the development of upstream and downstream commercial links for deposit-taking institutions, while letting the market decide the framework under which nondeposit-taking institutions would operate.

In summary, several elements must be taken into account when developing policy on commercial/financial links:

- A proper balance must be struck between competition and solvency;

- Most of the benefits to be derived from commercial/financial links are to be found upstream, while the risks or the costs are to be found both upstream and downstream;

- The moral hazard associated with commercial/financial links and safety nets is more likely to be of concern in the case of deposit-taking institutions, and disruptions to the financial system as a whole are more likely when commercial/financial links involve such institutions;

- Commercial/financial links do exist now, in Canada, for some categories of institutions;

- The major competitors of Canadian institutions in international markets have few commercial/financial links.

With respect to *downstream links*, there is little benefit to be gained from allowing investment by financial institutions in commercial ventures. But the costs – with respect to abuses of conflicts of interest, self-dealing, and possible insolvencies – are very much associated with downstream links.

Moreover, for many institutions, the holding of equity in commercial ventures is not a prudent investment, given the nature of their liabilities. For example, equity investments are not a good match for deposits.

With respect to *upstream links*, several alternatives can be considered:

- Impose no restrictions on commercial/financial links. This would tend to enhance the competitiveness of financial institutions but could endanger the stability of the system.

- Allow commercial/financial links on the condition that the institution will not grant financing to its nonfinancial partner. The effectiveness of this option has been questioned, however, as it might be possible to bypass the no-financing rule through a series of indirect transactions. Also, a ban on non-arm's-length transactions might reduce the attractiveness of commercial/financial links.

- Prohibit only deposit-taking institutions from acquiring commercial/financial links – or impose strict limits on their freedom in this area – because of their importance in the maintenance of a payments system. No restrictions would apply to other institutions. For example, the total equity holding of deposit-taking institutions by shareholders with commercial interests could be limited to 10 per cent individually and 25 per cent collectively. An alternative would be to subject only deposit-taking institutions to the $10-billion threshold.

- Ban such links outright. This would have a negative impact on the competitiveness of financial institutions, particularly on international markets, but it would strengthen their stability.

All of these proposals have merits and drawbacks. One may feel more comfortable with one than the other, depending on the emphasis put on promoting competition or protecting the stability of the financial system.

C Internationalization, Innovation, and the October 1987 Stock Market Crash

The 1987 stock market crash is an example of the way in which shocks can be transmitted rapidly around the world by financial markets. An analysis of the crash, however, shows that internationalization was not the cause of the decline. The impact of financial innovations – program trading, in particular – on the stability of a number of financial markets is a more controversial issue, however.

Internationalization and the Crash

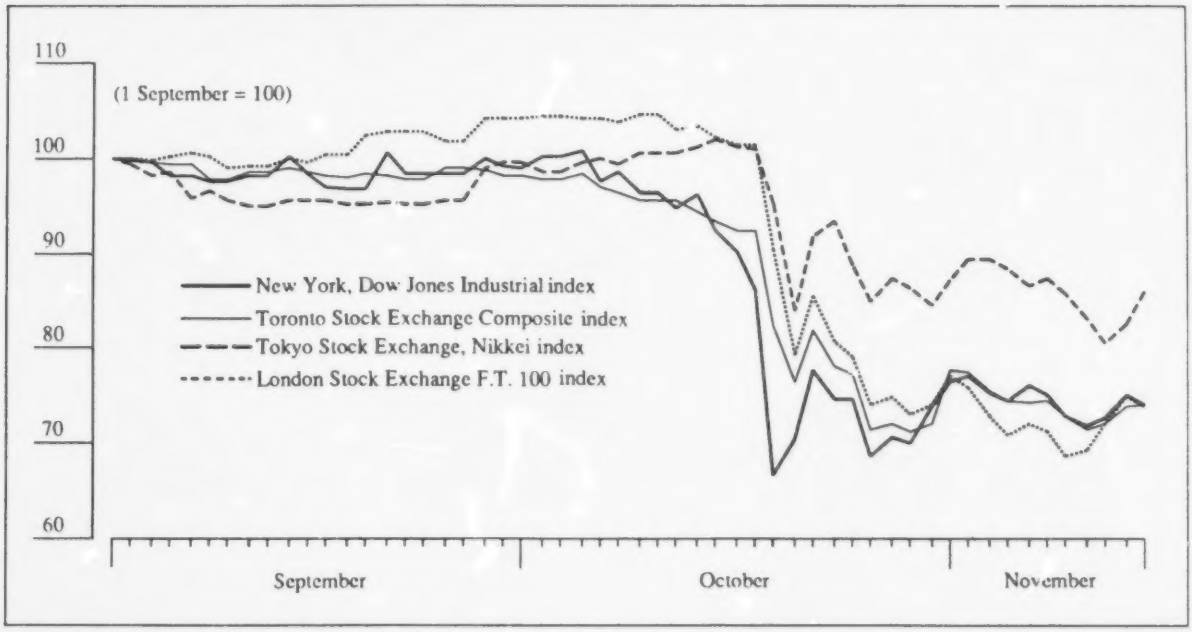
The major stock market indices around the world moved more or less together in the fall of 1987 (Chart C-1). This was particularly so in October, when, between the 16th and the 26th, markets in New York, Toronto, Frankfurt, London, Sydney, Singapore, and Tokyo rose and fell in unison.

That is not surprising, as some of the factors that brought about the decline in stock markets were common to several countries. Price/earnings ratios were reaching historical highs not only in New York but also in Toronto, London, and Tokyo; returns on stocks were well below bond yields in several countries. The Standard and Poor's 500 index of stock prices in the United States was 23 times the earnings per share, compared with a postwar average of 14.[1] In the United Kingdom, the Financial Times stock index was at a historically high multiple of 19.2 of earnings, with a yield of 2.7 per cent.

In addition, interest rates were on the rise, not only in North America, but also in Europe and Asia – to some extent as a result of the interaction between markets brought about by internationalization. In the United States, the long-term bond rate increased by nearly 200 basis points from August to mid-October, reaching 10.3 per cent. In West

Chart C-1

Selected Stock Market Indices, 1 September-13 November 1987



SOURCE: Based on data from *The Financial Times* and *The Globe and Mail*.

Germany and the United Kingdom, interest rates were also on the rise.

There was growing concern about whether the United States would be able to continue to finance its budgetary and current-account deficits. An increasingly larger share of U.S. government debt had been purchased by non-residents. It was believed that the U.S. dollar would deteriorate too much and too fast, and that this would undermine the incentive that led foreigners to purchase the U.S. debt. While a weaker dollar would likely have improved the U.S. trade balance, it would also have brought higher interest rates, which would have put downward pressure on stock market prices.

Changes in political and economic leadership also concerned investors. In the United States, Paul Volcker was replaced by Alan Greenspan at the helm of the Federal Reserve Board; in Japan, Noboru Takashita replaced Premier Nakasone.

As well, on 14 October, two events occurred in rapid succession: the West German government raised interest rates; and the U.S. trade figures for August were released, indicating a $15.68-billion deficit – a figure much higher than expected by market participants. Then, on 18 October, the United States bombed Iranian oil platforms in the Persian Gulf.

For the seven-day period beginning on 16 October, the New York stock market led the other stock markets around the world. This is in contrast to stock market movements before and after the crash. Prior to the crash, stock markets had not reached their peak values at the same time; they also registered lows at different times following the crash, as shown below.

	Peak	Low
Tokyo	15 June	11 November
London	16 July	9 November
Toronto	12 August	28 October
Frankfurt	17 August	10 Novemb
New York	25 August	20 Octobe
Singapore	26 August	7 December
Sydney	22 September	11 November
Hong Kong	1 October	7 December

Nor were the declines of the same magnitude: by 26 October, the index of the Hong Kong Stock Exchange, which had been closed for four days, was down 50 per cent; the corresponding figures were 37.5 per cent for Sydney, 32.2 per cent for Singapore, 28.1 per cent for London, 20 per cent for Toronto, 18 per cent for New York, 17 per cent for Frankfurt, and 15.6 per cent for Tokyo. By March 1988, Tokyo had recovered all of its losses, but this was not the case of the other major exchanges.[2]

While some non-residents sold stocks on the New York Stock Exchange between 16 and 20 October, they were not primarily responsible for the decline of the market, nor did they seem to exacerbate the magnitude of that decline. Thus, although the stock markets moved together for a while, internationalization was not the cause of their worldwide decline, nor was it the cause of the losses experienced by institutions and investors.

Besides, there had been only a weak correlation in stock market price movements between West Germany, Japan, the United Kingdom, Canada, and the United States over the period 1973-87, and no increase in the correlation over time (Table C-1). The only close association was – and is – between stock price movements in the United States and Canada.

These results are not surprising, as variations in stock prices should be related not only to capital moving from one centre to another in search of the highest rate of return, but also to more fundamental factors, such as real growth in the economy and the performance of individual companies. As the internationalization of financial markets does not bring a convergence in real growth or in the performance of individual corporations, one should not expect that stock markets will have identical performances, except in very special circumstances, as was the case in October 1987.

Financial Innovation and the Crash

While there is general agreement on the fundamental factors that caused the crash and on the rather small role played by internationalization, there is much less unanimity about whether the new instruments and techniques accentuated the decline. Such disagreement is evident in the six U.S. reports that investigated the crash.[3]

The reports of the Presidential task force and of the Securities and Exchange Commission (SEC) argued that the interaction between the futures market and the cash (or stock) market accelerated and exacerbated the drop in stock prices. The reports by the Chicago Board of Trade (CBOT), the Chicago Mercantile Exchange (CME), and the Commodity Futures Trading Commission (CFTC) blamed instead the disconnection between the cash and futures markets.

According to the first two reports, there was a negative psychology at work in the markets, created by the overhang

Table C-1

Trends in Stock-Price-Movement Correlations, 1973-87

	Correlations[1] of U.S. stock-price movements with those of:			
	West Germany	Japan	United Kingdom	Canada
1973	0.35	0.54	0.60	0.84
1974	0.24	–0.14	0.48	0.76
1975	0.32	0.74	0.55	0.65
1976	0.43	0.64	0.59	0.59
1977	–0.19	0.20	–0.21	0.74
1978	–0.03	–0.19	0.68	0.74
1979	0.60	0.47	0.32	0.70
1980	0.75	0.26	0.62	0.76
1981	0.51	0.23	0.44	0.57
1982	–0.14	0.60	0.24	0.76
1983	0.28	–0.08	0.88	0.61
1984	0.64	0.65	0.78	0.83
1985	0.17	0.11	0.36	0.82
1986	0.45	0.14	0.78	0.67
1987	0.62	0.67	0.86	0.95

1 Annual correlations of monthly movements.
SOURCE United States, Presidential Task Force on Market Mechanisms, *Report* (Washington, D.C., January 1988).

of expected selling from portfolio insurance. While stocks were generally overvalued in October, selling by institutions was the largest single factor directly responsible for the initial declines in the Dow Jones Industrial Average and the Standard and Poor's 500 index. For three critical trading days that month – the 16th, 19th, and 20th – the proportions of futures trading that can be attributed directly to portfolio insurance selling were 6.3, 16.7, and 25.5 per cent, respectively. During certain critical trading periods, index arbitrage or portfolio insurance, or both, accounted for between 30 and 68 per cent of the total volume of trading on the New York Stock Exchange in the stocks that make up Standard and Poor's 500 index.

On 19 October, a combination of selling from portfolio insurance and from index arbitrage totalled more than 60 per cent of the stock volume traded at various periods during the afternoon. The new trading mechanisms thus generated extraordinary peak volume and volatility, which at times could overwhelm the capacity of markets. On 19 and 20 October, the amount of portfolio selling was so large and so far beyond the substantial liquidity generally available in the futures and cash markets that market mechanisms that are normally adequate for the vast majority of trading situations failed on a massive scale.

On the other hand, the failure of information and computer systems was singled out as the main cause of the rapid downfall on those two days; it was also, according to the CME, CBOT, and CFTC reports, responsible for the impression that the futures markets were leading the cash markets. The CME report pointed out that when stocks are not traded on the cash market – as occurred on 14 October – it is the price at the close of the previous day that is incorporated into the evaluation of the index. This explains the large gap between futures prices that correctly reflected supply and demand at the moment and cash prices that were partially based on old quotations. On 19 October, the discount between the futures price and the cash price was as large as 19 points in the morning. It reached 37 points the following morning. When the index is recalculated, taking into account the absence of trades in many stocks, the discount is lower and may at times even disappear.

According to the CME report, the futures market has been a net absorber of pressure. In its absence, many of the sales that were executed on that market would have been executed on the cash market instead, adding to the downward pressures on stock prices.

Moreover, index arbitrage did not play a major role, since the New York Stock Exchange required firms not to use the DOT (computerized) system to implement program trading, beginning in the afternoon of 19 October. The selling of portfolio insurance made an important contribution to the overall trading, but many other factors were also at play.

According to a survey of 16 firms conducted by the CFTC and the SEC, there was active trading in index

arbitrage between the 14th and the 19th, but there was very little trading in that area thereafter because of the restrictions placed on the use of the DOT system and because of a lack of information on true prices on stock markets. There was a substantial increase in portfolio insurance selling on the 16th, 19th, and 20th, but the hedging, especially by institutional investors, was not monolithic, as there had been different reactions from various portfolio managers; one sold as many futures contracts as possible, while another terminated his portfolio insurance program. Many were already hedged and did not sell any more futures contracts because of the large discounts. Another purchased futures contracts in anticipation of future stock purchases, following the expected low in the stock market. The CBOT report also notes that the financial integrity of the markets was maintained throughout, although people used futures markets in record numbers in periods of volatility. All margin calls were met. The operations of futures markets were tested severely during the crash, but the system worked well.

Notes

Chapter 1

1 For the purpose of this analysis, trade imbalances are obtained by summing the absolute values of the external deficits and surpluses of the countries mentioned.

2 The "industrialized countries" here are those included by the International Monetary Fund in its international financial statistics; they comprise, in addition to the G-7 countries, Australia, Austria, Belgium, Denmark, Finland, Ireland, Luxembourg, the Netherlands, New Zealand, Norway, Spain, Sweden, and Switzerland.

3 Following the "Big Bang," brokers also obtained the freedom to set their own commissions; securities firms were given the power to trade on behalf of clients and on their own account; and the government-bond market was opened up to a larger number of participants. In particular, nonindustry participants – banks and other financial institutions – were allowed into the securities industries and were given the right to acquire important stakes in securities firms. At the same time, the separation of domestic from foreign activities was eliminated.

4 The Financial Services Act of 1986 regulates the investment business. It extends the scope of direct supervision to financial (and commodities) futures and options and to international securities traded in the United Kingdom. It created the Securities and Investment Board – a private-sector body – to which it delegated the supervision of the securities business. The Bank of England was also given special responsibility under the act for the sterling and foreign-exchange wholesale money markets and the gilt market.

Chapter 2

1 The Bank of Montreal began operations in 1817 and, a year later, established foreign representation in London and New York. Mortgage loan companies go back to the mid-19th century, with the incorporation in 1843 of the Trust and Loan Company of Upper Canada, which was established to lend money on the security of real estate properties. Life insurance companies appeared at about the same time, first with offices of British companies; and in 1847 the Canada Life Assurance Company was incorporated. The first trust company to operate as a trust with fiduciary powers was incorporated in 1872 by the Ontario Legislature under the name of Toronto General Trust Company. In the securities industry, the banks were major underwriters and traders of bonds and stocks. It is only at the turn of the century that the ancestors of modern-day Canadian securities firms appeared. A. E. Ames was formed in 1889; and Wood, Gundy, in 1905.

2 A more detailed description of the Canadian financial system will be found in Economic Council of Canada, *A Framework for Financial Regulation* (Ottawa: Supply and Services Canada, 1987), Chapter 1 and Appendix B.

3 For a more detailed discussion of this subject see A. Ryba, "The role and efficiency of the financial sector: From theory to reality," a presentation to the Annual Meeting of the Canadian Economics Association, Winnipeg, 29 May 1986.

4 Shortly before the publication of this report, the schedules to the Bank Act were renamed 1 and 2.

5 Before 1987, the size limit was $97,000. Exempt markets currently exist in Manitoba, Alberta, and British Columbia.

6 In the quest for diversification, it is often cheaper to proceed through acquisition than to expand *de novo* into new lines of business. Indeed, an established corporation already enjoys the advantages to be derived from a distribution network, in-house expertise, computer systems, and so on; it has a customer base and has accumulated a fair amount of good will. The economies of scope generated by diversification also provide a rationale for bringing together different operations. Merging a newly acquired corporation with the acquiring company can be a costly proposition, especially if the product lines of the two companies are only loosely linked. The mergers between banks and securities firms are a case in point. Both institutions tend to have different ways of operating, different customer bases, and different corporate cultures. A holding-group structure enables those costs to be lowered and control over all lines of business to be maintained while fostering cooperation between the entities. The holding-company structure may also be the only one possible when regulation prevents a corporation from engaging in some specific activities. For example, in the past, when trust companies could not directly engage in the securities business, the holding-group approach came in handy.

7 Financial institutions could also be considered as users of financial services. They deposit funds with one another, borrow from one another, and raise funds directly on domestic and international financial markets. These activities are part of the intermediation process, however, and financial dealings among financial institutions are no more than steps in the intermediation process.

8 See ECC, *Framework*, Chapter 6; and ECC, *Intervention and Efficiency: A Study of Government Credit and Credit Guarantees to the Private Sector* (Ottawa: Supply and Services Canada, 1985).

9 See ECC, *Framework*, Chapter 3.

10 Andrée Mayrand, "La concentration dans le secteur financier canadien – une mise à jour," a background paper prepared for the Economic Council of Canada.

11 Local credit unions and *caisses populaires*, as well as their regional and provincial federations, are regulated by provincial authorities. The Canadian Co-operative Credit Society (CCCS) is federally incorporated.

12 In a previous report on financial institutions, the Council recommended a regulation-by-function approach that would enable regulators to effectively supervise the financial system, while still permitting diversification to continue through holding companies rather than through subsidiaries or through an expansion of powers. The Council also recommended that each financial function – banking, in particular – be defined so that a separation of major functions could be maintained. See ECC, *Competition and Solvency* (Ottawa: Supply and Services Canada, 1986), p. 14.

13 Canada, Department of Finance, *New Directions for the Financial Sector* (Ottawa: Supply and Services Canada, 1986).

14 Pension funds that invest more than 10 per cent of the book value of their assets in foreign securities must pay a penalty tax.

Chapter 3

1 Joseph R. Schumpeter, *Business Cycles: A Theoretical Historical and Statistical Analysis of the Capitalist Process* (New York: McGraw-Hill, 1939), vol. 1.

2 See Bank for International Settlements, *Recent Innovations in International Banking* (Basle: BIS, April 1986); the committee that prepared the report was chaired by Sam Y. Cross, a senior officer of the Federal Reserve Bank of New York.

3 See F. Black and M. Scholes, "The pricing of options and corporate liabilities," *Journal of Political Economy* 81 (May-June 1973), pp. 637-54.

4 This occurs because, as soon as innovative financial instruments have been used, information on them becomes available to the first user's competitors, who can replicate the instruments. It is impossible to develop a copyright on innovative financial instruments or procedures. As a result, there is either a suboptimal supply of innovative instruments, since the innovator cannot keep for himself a sufficient proportion of profits to cover the development costs of the instrument, or a continuous flow of new products on the market in the quest to remain ahead of the competition.

5 There are other classifications of innovative instruments and processes. The Cross Report, for example, proposes a classification based on somewhat more specific functions of the instruments. Price-risk-transferring innovations help investors and borrowers in managing risks linked to the volatility of interest or exchange rates. Credit-risk-transferring instruments reallocate risks of default. Liquidity-generating instruments aim at increasing the liquidity of markets, at tapping new sources of funds, and at freeing borrowers and investors from constraints imposed by the limited capital base of large institutions. Credit-generating instruments contribute to increasing the availability of funds to borrowers. Equity-generating instruments aim at boosting the capital base of financial and nonfinancial institutions.

6 Several Canadian companies have complained about the flow-back problem; one corporation faced a flow-back of around 40 per cent of its European issue; another that had floated a share issue in Japan faced a flow-back of 55 per cent.

7 See, for example, Gordon H. Sellon, Sr. and Deana VanNahmen, "The securitization of housing finance," Federal Reserve Bank of Kansas City, *Economic Review* (July/August 1988).

8 This was a somewhat faster start than in the United States; whereas these securities represented 0.3 per cent of residential mortgages held by institutions in Canada, the comparable figure in the United States in 1970 had been 0.2 per cent.

9 Sean Becketti and Charles S. Morris, "Loan sales: Another step in the evolution of the short-term credit market," Federal Reserve Bank of Kansas City, *Economic Review* (November 1987).

10 The Chicago Board of Trade had been working on the design of this instrument since 1972. Its final version was presented to the newly established Commodity Futures Trading Commission in 1975. It became known as the "Ginny Mae" contract.

11 According to the Council's survey, forward contracts are considered useful because they are:

- certain (74 per cent of respondents);
- easy to understand and monitor (71 per cent);
- cheap in comparison with other instruments (59 per cent);
- easily available (60 per cent).

Option and futures markets are not generally used because:

– they are not suited to needs (47 per cent);

– they are too costly (options: 33 per cent; futures: 19 per cent);

– they are too speculative (options: 21 per cent; futures: 25 per cent);

– the firm lacks in-house expertise (30 per cent).

12 One institution, for example, made an innovative yen-U.S. dollar issue. For its part, the Export Development Corporation issued in the spring of 1987 a 13-1/8-per-cent "reversed-principal exchange-rate-linked security" (reversed-PERLS), linking the repayment to the yen/dollar exchange rate. This is a three-year note, with a total face amount of C$60 million and with the principal and interest both being payable in Canadian dollars. Each tranche of $1,000 of the principal is payable in Canadian dollars in an amount equal to $2,000 minus the Canadian-dollar equivalent of 108,000 yen, based on the exchange rate of the day. If one Canadian dollar is worth 108 yen, then the full amount of the notes is to be repaid. If the Canadian dollar is worth less than 108 but more than 54 yen, then less than the full face amount of the notes is to be paid. If the Canadian dollar is worth 54 yen or less, none of the face amount of the notes will be repaid, and if a Canadian dollar is worth more than 108 yen, then more than the face amount of the notes will be repaid.

13 Two approaches can be found in this area in Canada: 1) the legislation governing some financial institutions (banks, for example) allows them to participate in all markets and use all instruments except those which are expressly prohibited; 2) in the case of pension funds, insurance companies, and trust companies, the legislation specifies the activities that they may perform and the instruments that they may hold; all others are prohibited. Since most of the new instruments were developed after these laws were passed, they are not included in the so-called "legal list." Legislation currently under consideration will enable those institutions to use the new instruments, so long as such use is considered compatible with the "prudent man" rule in portfolio management.

14 Dennis W. Carlton, "Futures markets: Their purpose, their history, their growth, their successes and failures," Working Paper Series no. 78, Center for the Study of Futures Markets, Columbia University Business School, New York, April 1984, p. 50. According to the author, 16 per cent of all contracts "die" in their first year, and over 40 per cent by the end of their sixth year. About 50 to 60 per cent of contracts fail within 10 years.

15 Myrron L. Kwast, "An overview of financial futures and options in the U.S. economy," a staff study of the Federal Reserve System, Washington, D.C., December 1986.

16 Increased variability – i.e., an increase in day-to-day price movements – should not be confused with stronger price adjustment. For example, a large drop in stock prices should not be confused with larger day-to-day movements.

17 Studies of the Government National Mortgage Association's futures contracts – the first financial futures to be traded – "generally support the view that futures market in GNMA securities have not affected the volatility of cash market prices or may have even reduced it." Empirical studies of the option market, based on an examination of daily and weekly data, "suggest that the advent of listed options has not increased the volatility of cash market prices." See Kwast, "Overview of financial futures and options," pp. 21, 23, and 24. Similarly, Edwards found little evidence that volatility had increased in recent years; in fact, volatility in the period 1982-86 was lower than that experienced between 1979 and 1982. He also found that there had been no increase in volatility during the periods following the introduction of futures, even though futures prices are significantly more volatile than cash prices. See F. Edwards, "Financial futures and cash market volatility," Working Paper Series no. 159, Columbia University Business School, New York, June 1987.

18 Swap opportunities may, for example, arise from the existence of withholding taxes on interest payments to non-residents.

19 Maxwell Watson, Donald Mathieson, Russell Kincaid, et al., *International Capital Markets: Developments and Prospects* (Washington, D.C.: International Monetary Fund, January 1988).

20 Stephen D. Felgran, "Interest rates swaps, counterparty risk and prices," *New England Economic Review* (November-December 1987).

21 Nicholas de B. Katzenbach, "An overview of program trading and its impact on current market practices," a study commissioned by the New York Stock Exchange, 21 December 1987.

22 United States, Securities and Exchange Commission, *The October 1987 Market Break*, a report by the Division of Market Regulation (Washington, D.C.: SEC, February 1988).

23 The lack of success of portfolio insurance during the sharp decline in stock prices that month led many portfolio managers to abandon this technique.

24 Under the new rules, for example, the computer system may not be used to perform index arbitrage if the decline in price on the cash market is greater than 50 points.

Chapter 4

1 A distinction is usually made between foreign and international markets. "Foreign" refers to the use, by residents of one country, of the domestic financial market of another; for

example, a foreign bond issue is an issue totally placed in the domestic market of one country by an issuer from another. "International" denotes the simultaneous use of more than one domestic financial market, or the use of purely international markets, such as the Euromarkets; thus a bond placed simultaneously on the financial markets of two or more countries is an international bond.

2 Two tiers of borrowers can be distinguished in our survey. The first tier – the tier that has had the easiest access to international markets – includes governments, crown corporations, large industrial and financial corporations, and municipalities. The second tier consists mainly of small and medium-sized companies – the so-called "middle" market. Of the corporations responding to the survey, about 40 per cent had borrowed abroad in the last five years. This borrowing was done mainly by the large corporations. See A. Nigam, "Canadian corporations and governments, financial innovation and international capital markets: A survey," a paper prepared for the Economic Council of Canada, 1989.

3 Not all corporations raise funds in foreign or international markets. Of the corporations surveyed by the Council that had not borrowed abroad, an overwhelming 85 per cent indicated that adequate funds had been available domestically to meet their needs and that, as a consequence, recourse to international sources had not been necessary. And while the federal government has tapped domestic markets over the past 15 years, its major crown corporations and some provincial governments have borrowed abroad extensively, in order to avoid overcrowding Canadian financial markets.

The diversification of the borrower base, which facilitates the raising of funds, was cited by 50 per cent of the respondents to the survey who had borrowed abroad as a factor for using foreign and international markets. The ease of borrowing funds and the ability to attract investors were also reasons given by 37 and 30 per cent of the respondents, respectively.

In addition, 43 per cent of the respondents mentioned the presence of a subsidiary, parent, or affiliate in the country of borrowing as a factor. Publicity for the corporation's name was mentioned as a factor by over 30 per cent of the respondents.

4 The growing integration of financial markets may reduce these benefits, however, by causing some rates of return to converge. While convergence may occur at the international level between the basic returns on money-market instruments (short-term debt) and on government long-term debt, it is less likely to take place between the returns on long-term corporate debt and those on corporate equity. Despite some international convergence in basic interest rates, the returns on the debt or equity of foreign firms may, because of specific local conditions, move in quite different directions from those of domestic firms.

Among the authors who have studied this subject, Levy and Sarnat (1970) tested portfolio diversification for 28 countries, including some less-developed countries, from the point of view of the U.S. investor in common stock for the period 1951-67. They found that diversification would lead to a reduction of portfolio variance. In another study, the same authors (1978) examined the holding of foreign currencies and other securities (nine stocks and eight currencies) from the U.S. investor's point of view for the period 1959-73 and found that international diversification could bring benefits in terms of the reduction of risk. Levy (1981) considered the Treasury bill rate in 16 major developed countries for the period 1970-78 and found that while the optimal portfolios would differ from country to country, there are advantages to be gained from currency diversification. Solnick (1974) also documented the potential benefits from international diversification.

All of the above studies use nominal rates of return. Von Furstenberg (1981) examined whether currency diversification would be beneficial to U.S. investors when real rates of return are considered in the period of floating exchange rates from 1974 to 1980. He found that "investors in short-term, interest-bearing instruments of uniformly low default risk could have done much better over the first seven years of floating exchange rates if they had invested in assets denominated in some other currencies besides dollars."

Closely linked to the choice of an international portfolio is the question of exchange-rate fluctuations. Levy and Sarnat (1978), Makin (1978), Biger (1979), and Madura and Nosari (1983) have generally found that despite such fluctuations, foreign-exchange risk could be reduced by diversifying the currencies in which one borrows or invests.

See Haim Levy and Marshall Sarnat, "Diversification, portfolio analysis and the uneasy case for conglomerate mergers," *Journal of Finance* (September 1970), pp. 795-802; H. Levy and M. Sarnat, "Exchange rate risk and the optimal diversification of foreign currency holdings," *Journal of Money, Credit and Banking* (November 1978), pp. 453-63; H. Levy, "The CAPM and the investment horizon," *Journal of Portfolio Management* (Winter 1981), pp. 32-40; B. Solnick, "An equilibrium model of the international capital market," *Journal of Economic Theory* (August 1974), pp. 500-24; George M. von Furstenberg, "Incentives for international currency diversification by U.S. financial investors," *International Monetary Fund Staff Papers* (September 1981), pp. 477-94; John H. Makin, "Anticipated inflation and interest rates in an open economy," *Journal of Money, Credit and Banking* (August 1978), pp. 275-89; N. Biger, "Exchange risk implications of international portfolio diversification," *Journal of International Business Studies* (Fall 1979), pp. 64-74; and J. Madura and E. J. Nosari, "Speculation in international money markets," *Atlantic Economic Journal* (July 1983), pp. 87-90.

5 See, for example, Ragnar Nurkse, *International Currency Experience: Lessons from the Inter-War Period* (Geneva: League of Nations, 1944); Ralph C. Bryant, *International*

Financial Intermediation (Washington, D.C.: The Brookings Institution, 1987), pp. 61 and 62; and Henry C. Wallich, "Capital movements: The tail that wags the dog," in Federal Reserve Bank of Boston, *The International Monetary System: Forty Years After Bretton Woods* (May 1984).

6 The 25-per-cent withholding tax on interest payments on domestic bonds to non-residents was also removed.

7 Watson, et al., *International Capital Markets*.

8 In fact, these currencies are pegged to the European currency unit (ECU) within a band that is reviewed periodically by the members of the EMS. While the ECU consists of a basket of European currencies, that basket is dominated by the Deutschemark and is greatly influenced by the monetary policy of the West German government.

9 Assets are viewed as being highly substitutable between two countries when no exchange-rate risk premium is required for the residents of one country to hold assets denominated in the currency of the other. The difference in interest rates between domestic assets denominated in the domestic currency and comparable foreign assets denominated in the foreign currency would, in a situation of equilibrium, be equal to the expected increase or decrease in the price of foreign exchange over the holding period of the assets. For a fuller discussion of this subject, see Paul Boothe, Kevin Clinton, Agathe Côté, and David Longworth, "International asset substitutability: Theory and evidence for Canada," *Bank of Canada Review* (February 1985).

10 The equalization of rates of return has been used by several authors to measure the extent of internationalization: uncovered nominal interest-rate parity, by Cumby and Obstfeld (1981); and real-interest-rate parity, by Mishkin (1984), Cumby and Obstfeld (1982), and Cumby and Mishkin (1986). See R. E. Cumby and M. Obstfeld, "A note on exchange rate expectations and nominal interest differentials: A test of the Fisher hypothesis," *Journal of Finance* (June 1981); F. Mishkin, "Are real interest rates equal across countries?: An empirical investigation of international parity conditions," *Journal of Finance* (December 1984); R. E. Cumby and M. Obstfeld, "International interest rate and price level linkages under flexible exchange rates: A review of recent evidence," Working Paper 921, National Bureau of Economic Research, Cambridge, Mass., June 1982; and Robert E. Cumby and Frederic S. Mishkin, "The international linkage of real interest rates: The European-U.S. connection," *Journal of International Money and Finance* 5, no. 1, 1986.

11 For a discussion of the evidence for Canada, see Boothe, et al., "International asset substitutability."

12 The importance of such factors as the demand for and the supply of funds, the greater potential for exchange of information, and the agglomeration effect has been supported by econometric analysis; see Michael Goldberg and Robert W. Helsley, "The location of international financial activity: An interregional analysis," Federal Reserve Board of Kansas City, August 1988.

13 The analysis in this and the following section is based on a database provided by IFR Publishing Ltd., of London, U.K. The supporting data and more extensive analysis can be found in H. Zayat, "Canadian borrowers and Canadian financial institutions in international markets," a paper prepared for the Economic Council of Canada, 1989.

14 In the Eurobond market, the relative shares of issuing countries vary considerably over time. For example, between 1975 and 1982, Canada's share reached a low of 6 per cent in 1978 and a high of 18 per cent in 1981.

15 SRI, *Converging Competition in Financial Services*, International Business Intelligence Program, Report 758 (New York: SRI, 1987), p. 9.

16 In the period 1963-70, some 60 per cent of all bonds sold outside Canada and the United States were denominated in Deutschemark. The prominent position of the West German currency must be viewed in perspective: less than 1 billion dollars' worth of bonds were issued outside Canada and the United States during that period, and Deutschemark borrowings only took place in 1968 and 1969, when West German exchange rates were extremely low relative to those of the Canadian and U.S. dollars. In fact, during this period, over one quarter of all Eurobonds were issued in Deutschemark. The large usage of Deutschemark for borrowings by other countries was a reflection of market conditions at the time rather than a manifestation of internationalization as we know it today.

17 Price Waterhouse, *The Cost of 'Non-Europe' in Financial Services*, research on the "Cost of non-Europe," Basic Findings (Luxembourg: Commission of the European Communities, 1988), vol. 9.

18 Graham Bannock and E. Victor Morgan, *Banks and Small Business: An International Perspective*, a study prepared for the Forum of Private Business and the National Federation of Independent Business, August 1988.

19 C. Wyplosz, "La libre circulation des capitaux et le SME – un point de vue français," *Économie Européenne* (May 1988).

20 A number of authors have noted that when there are rigidities in other markets, there might be an improvement in overall economic welfare if compensatory distortions are introduced in the form of limits to the freedom of cross-border capital flows. The need to first liberalize the real economy – in particular, trade in goods and services – before liberalizing capital flows has been well established analytically.

21 Economic Council of Canada, *Strengthening Growth: Options and Constraints*, Twenty-Second Annual Review (Ottawa: Supply and Services Canada, 1985), Chapter 5.

22 For a more detailed discussion of the growing impact of capital flows on exchange rates, see Wallich, "Capital movements."

23 Securities Industry Association, *The International Market: Growth in Primary and Secondary Activity* (New York: SIA, July 1987).

Chapter 5

1 Of the foreign banking institutions present in this country, 18 had both a subsidiary and a representative office.

2 A fourth kind of foreign establishment, found in the United States is the agency. The status of the agency falls somewhere between that of the representative office and that of the branch. It may book loans on its own account, but it may not accept deposits. It is considered to be an integral part of the parent financial institution.

3 E. P. Neufeld, *The Financial System* (Toronto: Macmillan, 1972), Chapter 8.

4 Of these 165 Canadian companies, 142 were federally incorporated and 23 were provincially chartered.

5 The attempt by the government of British Columbia to gain control of the Bank of British Columbia in 1964, which would have been contrary to the spirit of the British North America Act, was a further consideration in implementing the 10-per-cent rule.

6 M. Lessard and F. Leroux, "Les banques étrangères au Canada," Les Cahiers du CETAI, no. 81-06, École des Hautes Études Commerciales, Montréal, June 1981.

7 Ministère des institutions financières, *Étude sur l'industrie des valeurs mobilières au Québec*, Rapport final (Québec: Éditeur officiel du Québec, 1972).

8 The different treatment given to Canadians and non-Canadians was aimed at enabling the Ontario securities industry to restructure before the arrival of large multinational companies, such as Goldman Sachs, Salomon Brothers, Citibank, Morgan Guaranty, Deutsche Bank, and so on. This would enable Canadian firms to survive increased competition. To succeed, the undercapitalized Ontario securities firms needed to forge alliances with stronger institutions, such as the Canadian chartered banks.

9 The management and supervision of a branch by the parent company are less costly than for a subsidiary. A branch simply requires a manager and support staff, whereas a subsidiary requires a head office, with a board of directors and the rest of the corporate apparatus associated with head office administration.

10 There is an exception to this rule: some agreements – such as the Basle Concordat or the EEC Directives – place some or all of the supervisory responsibility on the home country.

11 J. P. Hanna, B. Brittain, and T. Q. Hung, "LIBOR vs prime: The internationalization of the U.S. loan market," Salomon Brothers Bond Market Research, International Bond Market Analysis, New York, March 1981.

12 ECC, *Framework*, Chapter 6.

13 See, for example, the 1964 *Report* of the Royal Commission on Banking and Finance (the Porter Commission); ECC, *Efficiency and Regulation*; R. M. Pecchioli, *The Internationalisation of Banking: The Policy Issues* (Paris: Organisation for Economic Co-operation and Development, 1983); and J. W. Crow, "La concurrence entre les banques nationales et les banques internationales," a paper given at the annual meeting of the Mexican Bank Association, Monterrey, Mexico, 5 August 1988.

14 Canada, Royal Commission on Canada's Economic Prospects, *Report* (Ottawa: Queen's Printer, 1957).

15 Governor of the Bank of England, "Ownership and control of UK banks," *Bank of England Quarterly Bulletin* (November 1987), p. 526.

16 American Express is a conglomerate consisting of four operational divisions. TRS – the only division that provides commercial as well as financial services – markets the American Express credit card, traveller's cheques, and money orders; it also provides travel services, markets various goods to the holders of the American Express cards, publishes magazines, and offers life insurance through AMEX Life Company. Other members of the group include IDS Financial Services, which offers financial planning services; Shearson Lehman Hutton, a securities firm; and American Express Bank, which has a representative office in Canada. More than 90 per cent of the income of American Express comes from financial-service activities. American Express can thus be considered as a worldwide diversified financial company, which also offers nonfinancial services. It is TRS that has requested permission to establish a Schedule B bank in Canada.

17 It is because American and Canadian negotiators of the agreement had differing interpretations of the meaning of national treatment that no mention of that principle was made in the text of the accord. By "national treatment," Americans mean equality of competitive opportunities, whereas in the Canadian view, American institutions would be subject to the same laws and regulation as Canadian firms. The Canadian interpretation corresponds to the OECD definition of national treatment.

Chapter 6

1 Bryant, *International Financial Intermediation.*

2 The so-called "Group of Ten" comprises, in fact, 11 members: Belgium, Canada, France, the Federal Republic of Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom, and the United States.

3 This group represents 15 countries or territories that offer "offshore" financial facilities: the Bahamas, Bahrain, Barbados, the Cayman Islands, Cyprus, Gibraltar, Guernsey, Hong Kong, the Isle of Man, Jersey, Lebanon, the Netherlands Antilles, Panama, Singapore, and Vanuatu.

4 Bank for International Settlements, Committee on Banking Regulations and Supervisory Practices, "Principles for the supervision of banks' foreign establishments," Basle, May 1983, p. 1.

5 Bank for International Settlements, Committee on Banking Regulations and Supervisory Practices, "Report on international developments in banking supervision," Basle, September 1986.

6 See, in particular, Pecchioli, *Internationalisation of Banking*.

7 These bodies include the Advisory Committee for Banking Coordination of the European Communities (formed in 1979), the Offshore Group of Banking Supervisors (1980), and the Commission of Latin American and Caribbean Banking Supervisory and Inspection Organizations. There is, in addition, South East Asia, New Zealand, and Australia (SEANZA) – an association of 16 central banks from countries in the Indian subcontinent, southeastern Asia, and the Pacific basin.

8 Geoffrey Bardos, "The risk-based capital agreement: A further step towards policy convergence," *Federal Reserve Bank of New York Quarterly Review* (Winter 1987-88).

9 Bank for International Settlements, Committee on Banking Regulations and Supervisory Practices, "Proposals for international convergence of capital measurement and capital standards," Basle, December 1987, p. 3.

10 For example, the treatment of reserves differs from one country to another; loan losses are important in the United States but not in Japan. On the other hand, hidden reserves – the difference between the book and market values of a number of securities – are especially important for Japanese banks; they are included in the measure of capital but discounted by 30 per cent because of the uncertainty relating to their future realization value. The revaluation to market value of real estate being held is included in capital definitions in the United Kingdom but not in most other countries. Various countries include hybrid types of instruments, such as long-term preferred shares in Canada, the "titres participatifs et titres subordonnés de durée indéterminée" (joint shares and secondary shares of indeterminate maturity) in France, and perpetual debt instruments in the United Kingdom. The treatment of "good will" and of holdings of capital in other financial institutions are also important issues.

11 On 31 October 1987, for example, the Royal Bank of Canada had $17 billion in mortgage loans and $49 billion of other loans, for a total of $66 billion. If the credit risk attached to mortgages had been half that attached to other loans, mortgages would have received only half the weight given to other loans, when calculating the value of the assets to which the 8-per-cent risk-weighted capital/asset ratio would have been applied. That value would have been $57.5 billion – i.e., the full amount of nonmortgage loans plus half the amount of the mortgage loans.

12 The original indicators were: GNP growth rates, inflation rates, interest rates, unemployment rates, fiscal deficit ratios, current-account and trade balances, monetary growth rates, reserves, and exchange rates. At the Toronto Summit, the price of basic products was added to the list of indicators.

13 The Group of Five – which consists of the United States, Japan, West Germany, the United Kingdom, and France – meets from time to time to discuss monetary matters.

14 Volatility reflects day-to-day or month-to-month movements in exchange rates, with no discernible trend. Misalignment, on the other hand, is the persistent departure of an exchange rate from its long-term equilibrium level. See, for example, Richard C. Marston, "Exchange rate policy reconsidered," National Bureau of Economic Research, Working Paper 2310, Cambridge, Mass., 1987.

15 David O. Cushman, "The effect of real exchange rate risk on international trade," *Journal of International Economics* (August 1983); Peter Hooper and Steven Kohlhagen, "The effects of exchange rate uncertainty on the prices and volume of international trade," *Journal of International Economics* (November 1978); and Martin J. Bailey, George S. Tavlas, and Michael Ulan, "The impact of exchange rate volatility on export growth: Some theoretical considerations and empirical results," *Journal of Policy Modeling* (Spring 1987).

Appendix A

1 Organisation for Economic Co-operation and Development, *International Trade in Services* (Paris: OECD, 1984).

2 France St-Hilaire and John Whalley, "Some estimates of trade flows in banking services," a paper prepared for a symposium on "Conceptual and data issues in trade in services," held at Ottawa on 13 February 1986 by the Centre for the Study of International Economic Relations of the University of Western Ontario.

3 The GATT definition of national treatment only covers products crossing borders and not the treatment of firms established within a foreign country.

Appendix B

1 Canada, Department of Finance, *New Directions for the Financial Sector*, p. 17.

2 Province of British Columbia, Ministry of Finance and Corporate Relations, "Financial Institutions Act Major Policy Proposal," Victoria, B.C., October 1988, p. 23.

3 In a 1986 speech, the Governor of the Bank of Italy noted that "Italian experience demonstrates that when this principle has been set aside there have been serious consequences for institutional transparency, allocative efficiency and, above all, the stability of the credit system and the economy as a whole. Firms controlling banks or controlled by banks obtained funds well in excess of what their creditworthiness would have warranted; they financed their losses rather than seeking to remove the causes; and they involved large segments of the banking system together with savers in their crises. In the end, strong pressure was generated for a *de facto* commitment of the public purse and the central bank itself to support uneconomic activities and firms. The principle of separation has, of course, been derived from our experience and is not in any sense a dogma. It precludes banks' control of industry and vice versa, but certainly does not rule out investments in minority interests one way or the other." See Statement by C. A. Ciampi, Governor, *Banca d'Italia Economic Bulletin* (February 1987), p. 75.

4 Christine M. Cumming and Lawrence M. Sweet, "Financial structure of the G-10 countries: How does the United States compare?", *Federal Reserve Bank of New York Quarterly Review* (Winter 1987-88), p. 16.

5 For example, as of April 1987, Sanwa Bank had 32,647 shareholders. Among the shareholders, four insurance companies collectively held 14 per cent of the shares; seven manufacturing companies owned another 10 per cent; no other shareholder held more than 1 per cent of the shares. That widespread dispersal of the stock is typical of many Japanese banks.

6 When the French government privatized the Société Générale, about 20 per cent of its shares were held by large commercial and financial companies (e.g., Compagnie Générale d'Électricité, several insurance companies, and so on); 10 per cent were held by the employees; 15 to 20 per cent, by foreigners; and the rest, by the public at large.

7 Already, the large U.S. auto makers are involved in the supply of car loans, but their financial activities go well beyond the supply of such loans. For example, Ford Motors owns a major "thrift," and 18 per cent of its US$4.6-billion earnings in 1987 came from various financial services. Similarly, General Motors is now the second largest mortgage lender in the United States.

8 Among the more recent analyses, the following may be mentioned: Thomas J. Courchene, "Re-regulating the Canadian financial sector: The ownership dimension," Centre for the Analysis of National Economic Policy, Working Paper 87-01, University of Western Ontario, London, Ont., May 1987; and T. F. Huertas, "Can banking and commerce mix?", *CATO Journal* (Winter 1988).

9 Courchene, "Re-regulating the Canadian financial sector," p. 15.

10 Quoted in Huertas, "Can banking and commerce mix?", pp. 743-44. Many examples of the mixing of banking and commercial activities survive in the United States.

11 That is the view expounded by Halpert, among others:

> The United States, throughout its history, has imposed substantial legal impediments to the integration within a firm of both banking and non-banking business. This policy – often called the separation of banking and commerce – ranks among the most enduring doctrines in Anglo-American financial regulation, with a genealogy that extends almost three hundred years under English law. In the United States, the separation is maintained by numerous state and federal laws that elaborate upon their historical English antecedents. . . . The first enactment of restrictions on banks' commercial activities in the United States has a simple, if uncompelling explanation: it was the result of the wholesale and uncritical copying of English banking practices.

See S. K. Halpert, "The separation of banking and commerce reconsidered," *Journal of Corporation Law* (Winter 1988), pp. 482 and 491.

12 This position was clearly outlined in M. L. Fein, "The separation of banking and commerce in American banking history," an appendix to the statement by Paul A. Volcker, Chairman of the Board of Governors of the Federal Reserve System, before the sub-committee on Commerce, Consumer and Monetary Affairs of the Committee on Government Operations of the United States House of Representatives, 11 June 1986. In particular, the separation of commerce and banking was traced back to a report by Alexander Hamilton in the 19th century, which incorporates the concept of banking as limited to the provision of a means of exchange and the extension of short-term loans for business purposes, clearly excluding the involvement of banks in commercial enterprises.

13 See E. G. Corrigan, *Financial Market Structure: A Longer View* (New York: Federal Reserve Bank of New York, 1987).

14 See [illegible], *Competition and Solvency*, pp. 21-29.

15 For example, the Chairman of the Ontario Task Force on Financial Institutions stated that "all the so-called business conduct review committees in the world and all the regulators that can be imagined are not proof against the abuses of self-dealing. In the words of my task force report, assurance that self-dealing will not arise in situations of closely-held ownership requires two acts of faith: the first, in the integrity of controlling owners and the second, in the capacity of regulators to ensure that self-dealing prohibitions are in fact enforced." See S. Dupré, Testimony before the Legislative Assembly of Ontario, Standing Committee on Finance and Economic Affairs (Corporate Concentration), Toronto, 18 October 1986.

16 Canada, Department of Finance, *Deregulation of Canadian Financial Institutions: Proposal for Discussion* (Ottawa: Supply and Services Canada, April 1985).

Appendix C

1 The expected earnings per share, defined as profits of the company divided by the number of shares withstanding, are an important determinant of stock prices. Too high a price cannot be sustained in the long run.

2 Singapore, Hong Kong, Sydney, and Frankfurt were down more than 30 per cent, New York was down 27 per cent, and Toronto was down 20 per cent from their peak levels reached in 1987.

3 The six reports are as follows: *Report of the Presidential Task Force on Market Mechanisms* (January 1988); Chicago Board of Trade, "Response to the presidential task force on market mechanisms" (1 December 1987); Chicago Mercantile Exchange, "Preliminary report of the committee of enquiry appointed . . . to examine the events surrounding October 19, 1987" (22 December 1987); United States, Commodities Futures Trading Commission, "Final report on stock index futures and cash market activity during October 1987" (January 1988); United States, General Accounting Office, *Financial Markets: Preliminary Observations on the October 1987 Crash* (January 1988); and United States, Securities and Exchange Commission, *The October 1987 Market Break* (February 1988).

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Glossary

Arbitrage. A trading strategy whereby the same asset is simultaneously bought on market A and sold on market B in order to take advantage of a presumed or actual price difference between those two markets.

Asset-backed securities. Securities created by gathering a number of assets (such as mortgage, car, or commercial loans) into a pool and issuing certificates of participation in that pool to investors. Each certificate represents a claim on the pooled assets, which act as collateral.

Bank for International Settlements. An international organization of central banks, established in 1930 to handle war reparation payments. It now acts as a provider of short-term liquidity to central banks in need, operates the private ECU clearing and settlements system, and acts as agent for several organizations of the European Community. It is a major forum for promoting cooperation among central banks and other international organizations.

"Big Bang." Name given to the institutional changes that took place on the London stock market on 27 October 1986. Those changes mainly involved the liberalization of the securities industry by: freeing access to the stock exchange; permitting the ownership of securities firms by nonindustry participants; removing minimum commissions; and removing the functional separation between brokers fulfilling client orders and those operating on their own account. The "Big Bang" is a symbol of financial deregulation, although most of the regulatory changes in the United Kingdom actually occurred when the new Financial Services Act was passed.

Bretton Woods Agreement. An international agreement – signed at Bretton Woods, New Hampshire, in July 1944 by the representatives of 44 nations – that established a system of fixed parities between the currencies of the participating countries and the U.S. dollar.

Cash market. Also known as the "spot" market, a market where instruments are traded for immediate delivery.

Clearing mechanism. An organized system used by financial institutions to transfer securities or payment orders (such as cheques) among themselves.

Collateralized mortgage obligations. A form of asset-backed security created by pooling mortgages and issuing four classes of securities – A, B, C, and Z – which are sold to investors (see page 37).

Commercial paper. A short-term debt instrument issued by a corporation, usually carrying a maturity of 30, 90, or 180 days.

Contestable market. A market into which there is freedom of entry and from which exit is absolutely costless.

Counterparty. A party on one side of a transaction; for example, the counterparties to a personal bank loan are the bank and the borrower.

Country risk. The risk that a foreign-exchange or other problem developing in one country might prevent a borrower from reimbursing a loan denominated in a foreign currency. It is also known as transfer risk.

Credit risk. The risk that a counterparty to a contract (a borrower, for example) may fail to live up to the terms of the contract – usually with respect to the payment of the interest or the principal, or both.

Cross-pillar diversification. The expansion of institutions in one "pillar" into activities of another "pillar," either directly or through ownership of an institution in another "pillar." Examples are the provision of deposit-taking services (a banking function) by trust companies and the ownership of securities firms by banks.

Currency swap. A transaction in which interest payments in one currency are traded for an interest payment in another. The parties may also exchange the principal amount at a negotiated exchange rate. At maturity, the principal amount may be exchanged back at a pre-arranged exchange rate.

ECU. See: European currency unit.

Eurobonds. Bonds issued simultaneously in more than one country.

Euro-commercial paper. A short-term debt instrument, issued directly by a corporation on the Euromarket and carrying a maturity of 7 to 365 days; Euro-commercial paper is issued in high denominations – usually a minimum of $100,000 – and is usually underwritten by a bank or a securities firm. Unlike note-issuance facilities, however, Euro-commercial paper carries no safeguard for the issuer, other than an undertaking by the intermediary to place the paper on a best-effort basis.

Euro-deposit. A deposit booked outside the country in whose currency it is denominated.

Euro-equities. Shares that have been issued in the domestic markets of several countries simultaneously. Euro-equities offer investors the opportunity to invest in foreign corporations, providing them directly with a foreign stock and with valuable information in their own language. By having to meet the regulation of the host country, an issuer of Euro-equities can be

more easily compared with domestic corporations, thus giving added information to the investor. Euro-equities broaden the shareholder base of corporations and increase their capacity to raise capital.

Euromarket. The international market in which various instruments denominated in different currencies are traded. While the Euromarket instruments for deposits and bonds were first denominated in U.S. dollars, other currencies were later used – the Deutschemark, the French franc, the British pound, the Japanese yen, the Canadian dollar, the Australian dollar, and the Hong Kong dollar, for example.

European currency unit (ECU). A monetary unit of account, consisting of fixed proportions of the currencies of the countries belonging to the European Monetary System, each currency being weighted in proportion to the importance of the country's share of European trade.

Exempt market. A market for financial instruments that are not subject to regulation.

Floating-rate notes. A medium-term debt instrument (a Eurobond usually) carrying a floating rate of interest, which is reset periodically in relation to some independent interest rate – typically the London Interbank Offered Rate (LIBOR). FRNs provide investors with an insurance against inflation by transferring the interest-rate risk to the borrower. For borrowers, FRNs are a cheaper source of funds than fixed-rate bonds, especially when investors demand high-risk premiums before they will commit themselves to fixed rates. Regular (or dated) FRNs are medium-term bonds paying a flexible interest rate. Perpetual FRNs – the market for which collapsed at the end of 1986 when lack of liquidity forced securities firms to abandon them – were bonds issued without a set redemption date mainly by commercial banks seeking to boost their capital base, and were purchased by banks. Other variants include "capped FRNs," with a ceiling on the interest rate payable; "convertible FRNs," which may be converted (at the investor's option) into a long-term, fixed-rate bond; "inversed FRNs," which pay interest in an inverse relationship to the movement of a benchmark interest rate; and "minimax FRNs," with both a minimum and a maximum interest rate payable.

Forward contract. An agreement between two parties to exchange a specified amount and type of commodity or financial instrument at a future date at a predetermined price (see page 41).

Forward rate agreement. An agreement whereby the counterparties (usually a bank and its customer) set an interest rate for a predetermined date in the future on a hypothetical (notional) amount of principal (see page 41).

Futures contract. A contract, usually traded on an organized exchange, that confers the right and the obligation to buy or sell a specific commodity or currency at a fixed date and at a predetermined price (see page 41).

Glass-Steagall Act. The U.S. Banking Act, adopted in 1933, which established, among other things, the principle of separation of banking from securities activities.

Hedging. The taking of a position to reduce risk by offsetting existing or anticipated exposure to a change in market prices.

Index arbitrage. A form of arbitrage between futures and stock markets. Arbitrageurs typically buy stocks and sell futures when stocks are underpriced, and sell stocks and buy futures when stock prices are high. For example, if the futures price is too high relative to the cash price – i.e., if the price of the future is higher than the cash price plus the interest cost of holding the asset for future delivery – a profit can be earned by buying the stock on the cash market and selling a contract for future delivery. When the futures contract expires, the arbitrageur unwinds his position by settling the futures contract and selling the stock. As the price of the cash and futures markets converges on the settlement date, the arbitrageur will almost certainly make a profit.

Interest-rate swap. A transaction in which two counterparties exchange interest payments on a hypothetical (notional) principal amount. The main types of swap are: a fixed-rate instrument for a floating-rate instrument in the same currency; one floating-rate index for another floating-rate index in the same currency; and a fixed-rate instrument in one currency for a floating-rate instrument in another.

Intermediation. There are several forms of financial intermediation: "denomination intermediation," whereby institutions obtain funds through deposits or other instruments in denominations that are different from those of the loans they make; "default-risk intermediation," whereby institutions offer to savers claims on themselves that are somewhat more insulated from losses than the individual claims that they have acquired; "term intermediation," whereby an institution supplies funds with a term to maturity different from that of the money entrusted to it; "interest-rate intermediation," whereby an institution fixes the interest rate over a given term for either the lender or the borrower without a similar arrangement being made on the other side of the ledger; and "capital-value intermediation," whereby the institution holds securities with a capital value that fluctuates while offering liabilities that can be redeemed at a fixed money value.

Issue. This term can be used with two different meanings: 1) the offering for sale (or issuance) of a new series of a security such as a stock or bond by a corporation, government, or institution; and 2) a security outstanding.

Letter of credit. A commitment by a bank or some other financial institution to pay a certain sum of money on demand on behalf of a client who pays a fee for this guarantee.

LIBOR. The London Interbank Offered Rate. The rate of interest at which banks in London are prepared to lend to other banks in London.

Loan-backed securities. Asset-backed securities based on a pool of car loans, credit-card receivables, or business loans.

Loan sale. Loans sold by a bank to an investor. These may be without recourse, whereby all risks of default are transferred to the investor and the loan is taken off the bank's balance sheet. For a fee, the bank may service the loan. A bank may also sell loans with recourse, with the loan remaining on its balance sheet. This kind of sale is undertaken to allow the bank to originate more loans and obtain a more efficient use of its capital base. At the same time, it may continue servicing the loan because it has a better knowledge of the customer and therefore can work out any difficulty with the loan at a lower cost than other firms.

Market intermediaries. Intermediaries who arrange for the direct purchase by investors of the financial instruments of the users of the funds.

Market maker. A market participant, usually a financial institution, that stands ready to buy – or to sell out of its own inventory – a specific asset, so that the asset can always be traded by other market participants. The market maker earns a profit from the difference between the buying and selling prices. Market-making activity maintains liquidity in the asset, reduces its riskiness, and makes it a more attractive investment.

Mortgage-backed bonds. Bonds issued by a mortgage company, mainly in the United States, which pay interest at regular intervals and repay the principal either periodically or at maturity. These are asset-backed securities in which a pool of mortgage loans acts as collateral; however, the bonds remain a direct liability of the issuing company, and the loans remain on the book of the originator.

Mortgage-backed securities. Asset-backed securities based on a pool of mortgages.

Mortgage pass-throughs. A form of mortgage-backed security, in which interest and redemption payments on the mortgages received by the pool are redistributed to the certificate holders at the prorata of their share in the pool. Participation certificates constitute shares of the undivided pool of mortgages in much the same fashion as stocks are shares in an undivided corporation. The holder of the participation certificate is the owner of a percentage of the pool of mortgages. As interest and redemption payments are received by the pool, they are redistributed monthly to the certificate holders at the prorata of their share until all interest and principal on mortgages in the pool have been reimbursed.

National treatment. In trade negotiations, an agreement between the parties that foreign and domestic institutions will be treated in exactly the same fashion by the host country.

Note-issuance facilities. A medium-term (i.e., five to seven years) binding commitment, under which a borrower can issue short-term paper in its own name with a maturity of three to six months. The facility is generally underwritten by a bank, a group of banks, or a syndicate, and the bank normally undertakes to extend credit to the issuer or to buy its notes if they cannot be sold at an agreed-upon minimum price. Variants include RUFs (revolving underwritten facilities), NPFs (note-purchase facilities), and TRUFs (transferable underwritten facilities, which enable underwriting banks to transfer their commitments to others).

Off-balance-sheet activity. The share of the business of financial institutions that does not involve the reporting of assets or liabilities on the balance sheet. This activity is generally of the type that creates a contingent liability for the institution.

Option contract. A contract that gives the holder the right, but not the obligation, to buy or to sell a specified amount of a commodity, financial asset, or currency at a predetermined price – or, in the case of an interest-rate option, to fix the interest rate at a specified future date on a hypothetical (notional) amount.

Originator. The institution or lender that originally extends a loan to a borrower.

Over-the-counter transactions. Trading in financial instruments that is conducted outside of organized exchanges. These transactions include bank loans, swaps, and so on.

Perpetual floating-rate notes. Floating-rate notes issued mainly by banks and corporations, without a set redemption date.

"Pillar." Group of institutions performing a major financial function. The Canadian financial system is often described as consisting of four "pillars": banks, trust companies, insurance companies, and securities dealers.

Portfolio insurance. A computerized technique used to minimize losses in a declining market by continuously rebalancing the portfolio between equity, debt, and cash. The techniques used include the sale and purchase of futures contracts in an attempt to prevent the value of the portfolio from dropping below 95 per cent of its original value.

Position risk or *price risk.* The risk that the financial position of a market participant will be adversely affected by a change in interest or exchange rates if its assets and liabilities are not matched with respect to interest-rate structure or currency composition.

Private pension plan. A pension plan sponsored by an employer (in either the private or the public sector) or by a union for its members. Private plans include: trusteed pension plans, in which funds collected from employees and employers are managed by a trustee; insured plans, where the funds collected are merged with an insurance company's insurance funds; registered retirement savings plans (RRSPs); and some government employee plans where funds are held by governments in their consolidated revenue accounts. By contrast, public pension plans are provided by governments to all residents who qualify by reason of age or income or both. They include the Canada and Quebec Pension Plans, Old Age Security, and Guaranteed Income Supplement.

Prospectus. A legal document prepared by a corporation as a prerequisite to a bond or stock issue. It describes the conditions of the issue and provides information on the corporation. A prospectus must be filed with most securities commissions before they will allow a corporation to offer its securities for public sale.

Reciprocity. In trade negotiations, the exchange of concessions to the mutual advantage of each party. This differs from "national treatment" (q.v.) in that under the latter, an institution from one country can do in the host country whatever the host country's own institutions can do, whereas under reciprocity, the emphasis is on each country giving concessions of equal value.

Securitization. This term is used with two meanings: 1) the direct issue of securities by corporate borrowers; and 2) the repackaging of mortgage, credit-card, or car loans into securities pools through the issuance of asset-backed securities. In the first meaning, securitization refers to the increased use of traditional securities – such as bonds – and a variety of new negotiable instruments such as NIFs, FRNs, and Euro-commercial paper. In the second meaning, it refers to the conversion of loans or receivables into negotiable instruments, which are then offered to investors.

Settlements mechanism. An organized system used by financial institutions to effect final payments for transactions.

Swap. A financial transaction in which two parties agree to exchange streams of payments over time, according to a predetermined rule. See "currency swaps" and "interest-rate swaps."

Thrift. Regional banking institutions in the United States, consisting of savings and loan associations, mutual saving banks, and credit unions. Thrifts are the major group of institutions originating mortgages in the United States.

Underwriting. The process by which securities or insurance policies are issued and which involves risk being borne by a financial institution.

Volatility. In the context of exchange or interest rates or of the prices of securities, volatility refers to very short-term movements not justified by changes in the underlying economic conditions. Volatility is usually measured in terms of day-to-day or week-to-week movements in rates or prices.

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Special thanks are due to the Informatics Division, the Publications Division, and the Registry Service, for their contribution to this report.

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